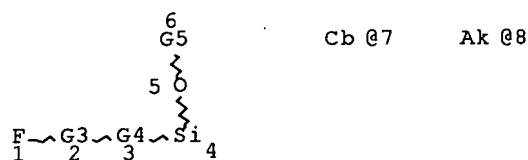


=> d que stat 176

L74 STR



VAR G3=AK/CY

REP G4=(0-20) A

VAR G5=7/8

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7

CONNECT IS E1 RC AT 8

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L76 2634 SEA FILE=REGISTRY SSS FUL L74

100.0% PROCESSED 36461 ITERATIONS

2634 ANSWERS

SEARCH TIME: 00.00.02

=> d que nos 1238

L10                    QUE   ABB=ON   PLU=ON   JUST, E?/AU

L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU

L12                    QUE   ABB=ON   PLU=ON   JENKNER, P?/AU

L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA

L14 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
<2005 OR REVIEW/DT

L32                    QUE   ABB=ON   PLU=ON   C07F0007-14/IPC

L60                    QUE   ABB=ON   PLU=ON   ESTER?

L63 ( 1)SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS

L64                    SEL   PLU=ON   L63 1- RN :                    9 TERMS

```
L65      9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L64
```

L66 1 SEA FILE=REGISTRY ABB=ON PLU=ON L65 AND "C8 H4 CL3 F13  
SI"/MF

L67            1 SEA FILE=REGISTRY ABB=ON    PLU=ON    L65 AND PT/ELS

L68 3 SEA FILE=REGISTRY ABB=ON PLU=ON L65 AND SI/ELS

```
L69      2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L68 NOT F/ELS
```

```
L71      1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L69 NOT L67
```

```
L72      6 SEA FILE=REGISTRY ABB=ON  PLU=ON  L65 NOT (L66 OR L67 OR L71)
```

L73            QUE ABB=ON   PLU=ON   ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O  
R ?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKA  
NOL?

L74 STR

L76 2634 SEA FILE=REGISTRY SSS FUL L74

L80 1138 SEA FILE=HCAPLUS ABB=ON PLU=ON L76 (L) (PREP+NT)/RL

L81                    QUE   ABB=ON   PLU=ON   ESTERIFICATION+PFT,OLD,NEW,NT/CT

10/583,553

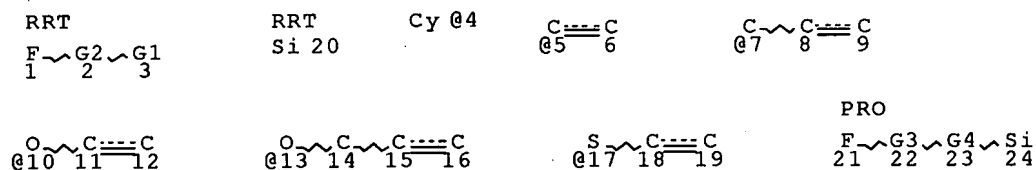
```

L82      QUE ABB=ON PLU=ON ALCOHOLS+PFT,OLD,NEW/CT
L137     41 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 (L) L73
L138     3 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND (L82 (L) L60)
L139     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND (L81 (L) L73)
L140     8 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L32
L141     49 SEA FILE=HCAPLUS ABB=ON PLU=ON (L137 OR L138 OR L139 OR
L140)
L142     1628 SEA FILE=REGISTRY ABB=ON PLU=ON L76 NOT PMS/CI
L143     2315 SEA FILE=HCAPLUS ABB=ON PLU=ON L142
L144     541 SEA FILE=HCAPLUS ABB=ON PLU=ON L143 (L) (PREP+NT)/RL
L145     22 SEA FILE=HCAPLUS ABB=ON PLU=ON L144 (L) L73
L146     29 SEA FILE=HCAPLUS ABB=ON PLU=ON L141 AND L144
L147     29 SEA FILE=HCAPLUS ABB=ON PLU=ON L145 OR L146
L148     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L147 AND (L10 OR L11 OR L12
OR L13)
L149     28 SEA FILE=HCAPLUS ABB=ON PLU=ON L147 NOT L148
L150     27 SEA FILE=HCAPLUS ABB=ON PLU=ON L149 AND L14
L151     26655 SEA FILE=HCAPLUS ABB=ON PLU=ON L82 (L) (RACT+NT)/RL
L152     4760 SEA FILE=HCAPLUS ABB=ON PLU=ON L81 (L) L73
L153     15 SEA FILE=HCAPLUS ABB=ON PLU=ON L150 AND (L32 OR (L151 OR
L152))
L154     12 SEA FILE=HCAPLUS ABB=ON PLU=ON L150 NOT L153
L155     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L154 AND PROMOTER/TI
L156     12 SEA FILE=HCAPLUS ABB=ON PLU=ON L154 OR L155
L230     1155 SEA FILE=HCAPLUS ABB=ON PLU=ON L72 OR L66
L231     469 SEA FILE=HCAPLUS ABB=ON PLU=ON L230 (L) (RACT+NT)/RL
L232     27 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L231
L233     6 SEA FILE=HCAPLUS ABB=ON PLU=ON L232 AND (L73 OR L82)
L234     0 SEA FILE=HCAPLUS ABB=ON PLU=ON L233 AND (L10 OR L11 OR L12
OR L13)
L236     6 SEA FILE=HCAPLUS ABB=ON PLU=ON L233 NOT L234
L237     6 SEA FILE=HCAPLUS ABB=ON PLU=ON L236 AND L14
L238     17 SEA FILE=HCAPLUS ABB=ON PLU=ON L237 OR L156

```

=> d que stat l160

L159 STR



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

10/583,553

STEREO ATTRIBUTES: NONE

L160 294 SEA FILE=CASREACT SSS FUL L159 ( 2129 REACTIONS)

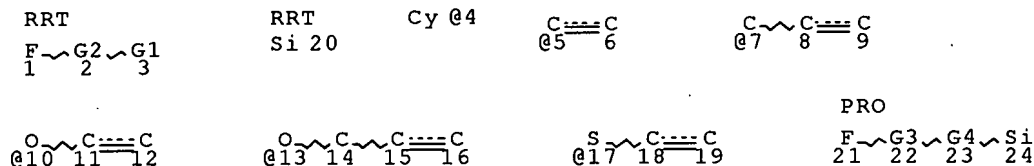
100.0% DONE 50363 VERIFIED 2129 HIT RXNS

294 DOCS

SEARCH TIME: 00.01.47

=> d que stat l183

L166 STR



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

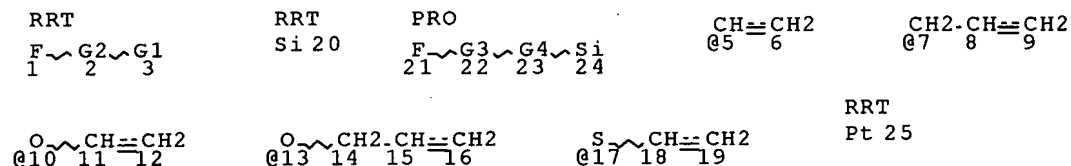
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L167( 294)SEA FILE=CASREACT SSS FUL L166 ( 2129 REACTIONS)

L168 STR



VAR G1=5/7/10/13/17

VAR G2=AK/CY

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

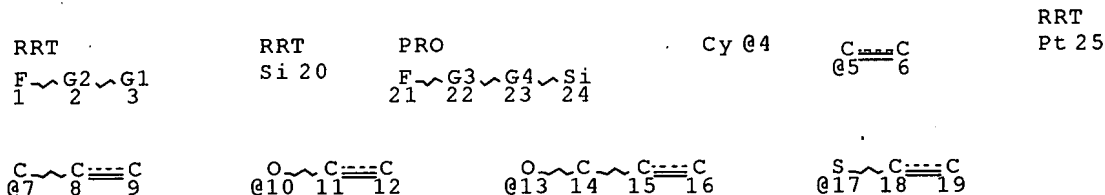
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

10/583,553

L169 ( 1)SEA FILE=CASREACT SUB=L167 SSS FUL L168 ( 5 REACTIONS)  
L170 STR



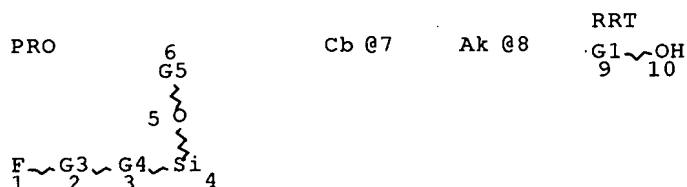
VAR G1=5/7/10/13/17  
VAR G2=AK/4  
VAR G3=AK/CY  
REP G4=(0-20) A  
NODE ATTRIBUTES:  
NSPEC IS RC AT 25  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

L171( 2)SEA FILE=CASREACT SUB=L167 SSS FUL L170 ( 6 REACTIONS)  
L172( 29)SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (PT?/BI,AB OR  
?PLATIN?/BI,AB OR HPT?/BI,AB)  
L173( 29)SEA FILE=CASREACT ABB=ON PLU=ON L172 OR L169 OR L171  
L174( 7)SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (?H2PT?/BI,AB)  
L175( 31)SEA FILE=CASREACT ABB=ON PLU=ON L174 OR L173  
L176 QUE ABB=ON PLU=ON JUST, E?/AU  
L177 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
L178 QUE ABB=ON PLU=ON JENKNER, P?/AU  
L179 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
L180 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
<2005 OR REVIEW/DT  
L181( 2)SEA FILE=CASREACT ABB=ON PLU=ON L175 AND (L176 OR L177 OR  
L178 OR L179)  
L182( 29)SEA FILE=CASREACT ABB=ON PLU=ON L175 NOT L181  
L183 26 SEA FILE=CASREACT ABB=ON PLU=ON L182 AND L180

=> d que stat l162  
L157 STR



VAR G1=AK/CB  
VAR G3=AK/CY  
REP G4=(0-20) A

VAR G5=7/8

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 10

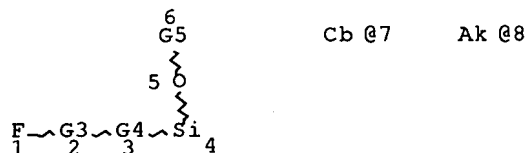
STEREO ATTRIBUTES: NONE

L162 47 SEA FILE=CASREACT SSS FUL L157 ( 124 REACTIONS)

100.0% DONE 32194 VERIFIED 124 HIT RXNS 47 DOCS  
 SEARCH TIME: 00.00.09

=> d que stat l191

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L14 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
 <2005 OR REVIEW/DT  
 L32 QUE ABB=ON PLU=ON C07F0007-14/IPC  
 L74 STR



VAR G3=AK/CY

REP G4=(0-20) A

VAR G5=7/8

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L76 2634 SEA FILE=REGISTRY SSS FUL L74  
 L157 STR

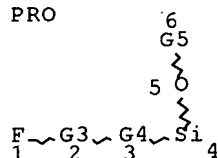
RRT

cb @7

Ak @8

$$\text{G1} \sim \text{OH}$$

9
10



VAR G3=AK/CY

VAR G5=7/8

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7

CONNECT IS E1 RC AT 8

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

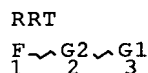
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

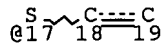
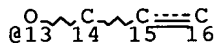
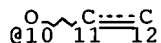
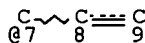
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

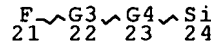
L159 STR



Cy @4



PRO



VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL 1

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L160            294 SEA FILE=CASREACT SSS FUL L159 ( 2129 REACTIONS)

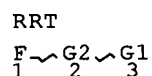
```
L162      47 SEA FILE=CASREACT SSS FUL L157 ( 124 REACTIONS)
```

L163            6 SEA FILE=CASREACT ABB=ON    PLU=ON    L160 AND L162

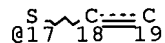
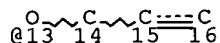
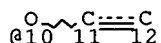
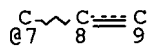
L164            0 SEA FILE=CASREACT ABB=ON    PLU=ON    L162 AND L32

L165            6 SEA FILE=CASREACT ABB=ON    PLU=ON    (L163 OR L164)

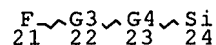
L166 STR



Cy @4



PRO



VAR G1=5/7/10/13/17

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

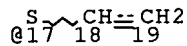
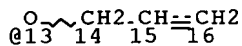
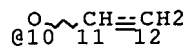
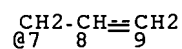
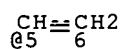
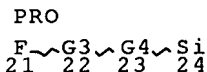
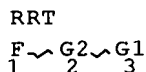
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L167( 294)SEA FILE=CASREACT SSS FUL L166 ( 2129 REACTIONS)

L168 STR



VAR G1=5/7/10/13/17

VAR G2=AK/CY

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

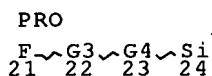
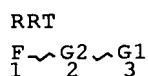
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

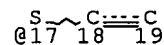
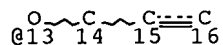
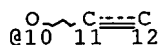
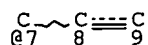
STEREO ATTRIBUTES: NONE

L169( 1)SEA FILE=CASREACT SUB=L167 SSS FUL L168 ( 5 REACTIONS)

L170 STR



Cy @4



```
VAR G1=5/7/10/13/17
```

VAR G2=AK/4

VAR G3=AK/CY

REP G4=(0-20) A

NODE ATTRIBUTES:

NSPEC IS RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

```
L171(          2)SEA FILE=CASREACT SUB=L167 SSS FUL L170 (          6 REACTIONS)
```

```

L172(      29)SEA FILE=CASREACT ABB=ON  PLU=ON  L167 AND (PT?/BI,AB OR
           ?PLATIN?/BI,AB OR HPT?/BI,AB)

```

L173( 29) SEA FILE=CASREACT ABB=ON PLU=ON L172 OR L169 OR L171

L174 ( 7) SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (?H2PT?/BI,AB)

```
L175(          31)SEA FILE=CASREACT ABB=ON  PLU=ON  L174 OR L173
```

L176                    QUE   ABB=ON   PLU=ON   JUST, E?/AU

L177                    QUE   ABB=ON   PLU=ON   GIESSLER, S?/AU

L178 QUE ABB=ON PLU=ON JENKNER, P?/AU

L179 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA

L180            QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
                 <2005 OR REVIEW/DT

L181( 2)SEA FILE=CASREACT ABB=ON PLU=ON L175 AND (L176 OR L177 OR  
L178 OR L179)

```
L182 (      29) SEA FILE=CASREACT ABB=ON  PLU=ON  L175 NOT L181
```

L183 26 SEA FILE=CASREACT ABB=ON PLU=ON L182 AND L180

```

L184      3 SEA FILE=CASREACT ABB=ON  PLU=ON  L183 AND L162

```

L186 93 SEA FILE=CASREACT ABB=ON PLU=ON L76/PRO

```
L187      19 SEA FILE=CASREACT ABB=ON   PLU=ON   L186 AND (L160 OR L183 OR
```

L188 19 SEA FILE=CASREACT ABB=ON PLU=ON L165 OR L184 OR L187

L189            0 SEA FILE=CASREACT ABB=ON    PLU=ON    L188 AND (L10 OR L11 OR L12  
                 OR L13)

```
L190      19 SEA FILE=CASREACT ABB=ON  PLU=ON  L188 NOT L189
```

```
L191      18 SEA FILE=CASREACT ABB=ON   PLU=ON   L190 AND L14
```

=> d que stat 1193

L157 STR

PRO

Cb @7

Ak @8

RRT

$$\text{G1} \sim \text{OH}$$

9
10

$$F_1 \sim G_2^3 \sim G_3^4 \sim Si_4$$

VAR G1=AK/CB

VAR G3=AK/CY

REP G4=(0-20) A

VAR G5=7/8



## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 10

## STEREO ATTRIBUTES: NONE

L193 6 SEA FILE=CHEMINFORMRX SSS FUL L157 ( 20 REACTIONS)

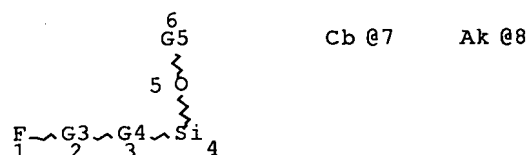
100.0% DONE 2725 VERIFIED 20 HIT RXNS 6 DOCS  
 SEARCH TIME: 00.00.19

=> => d que nos l196

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA  
 L14 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
 <2005 OR REVIEW/DT  
 L157 STR  
 L193 6 SEA FILE=CHEMINFORMRX SSS FUL L157 ( 20 REACTIONS)  
 L194 0 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L193 AND (L10 OR L11 OR  
 L12 OR L13)  
 L195 6 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L193 NOT L194  
 L196 6 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L195 AND L14

=> d que stat l198

L74 STR



VAR G3=AK/CY

REP G4=(0-20) A

VAR G5=7/8

## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

## STEREO ATTRIBUTES: NONE

L198 405 SEA FILE=BEILSTEIN SSS FUL L74

100.0% PROCESSED 13585 ITERATIONS ( 6 INCOMPLETE) 405 ANSWERS  
 SEARCH TIME: 00.00.17

=> d his 1198-1206

(FILE 'BEILSTEIN' ENTERED AT 13:53:35 ON 30 OCT 2007)

L198 405 S L74 FUL  
 L199 359 S L198 AND RXPRO/FA  
 SELECT L199 1- BABSAN

FILE 'BABS' ENTERED AT 13:55:32 ON 30 OCT 2007

L200 120 S E13-E132/AN  
 L201 15 S L200 AND L73  
 L202 0 S L201 AND L10-L13  
 L203 15 S L201 NOT L202  
 L204 14 S L203 AND L14  
 L205 10 S L204 AND (L60 OR L17 OR L18 OR L19 OR L20-L21 OR L79 OR L23  
 L206 14 S L204-L205

=> d que 1206

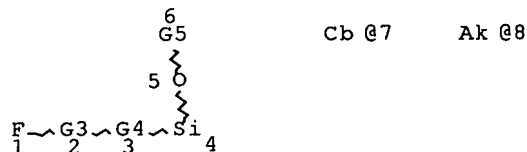
L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L14 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
 <2005 OR REVIEW/DT  
 L17 QUE ABB=ON PLU=ON HYDROSIL? OR (HYDRO(W)(SILAT? OR SIL  
 YLAT?))  
 L18 QUE ABB=ON PLU=ON ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR (  
 (?FLUOR? OR PERFLUOR? OR OLIGOFUOR? OR DIFLUOR? OR TRIFL  
 UOR?)(3A) (?OLEFIN? OR ?ALKEN?))  
 L19 QUE ABB=ON PLU=ON ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR?  
 OR TRICHLOR?)(3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?C  
 HLORID?) OR (?SILYL?(1W)?CHLORID?)  
 L20 QUE ABB=ON PLU=ON ?CL6PT?  
 L21 QUE ABB=ON PLU=ON ?HEXACHLOROPLATIN?  
 L23 QUE ABB=ON PLU=ON F OR ?FLUORO? OR ?FLUORID?  
 L24 QUE ABB=ON PLU=ON ?FLUORIN?  
 L25 QUE ABB=ON PLU=ON CL OR CHLORINAT? OR ?CHLORO? OR ?CHL  
 ORID?  
 L26 QUE ABB=ON PLU=ON SI OR SILICON  
 L60 QUE ABB=ON PLU=ON ESTER?  
 L73 QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O  
 R ?GLYCOL? OR ?DIOL OR ?TRIOL OR POLYALCOHOL? OR POLYALKA  
 NOL?  
 L79 QUE ABB=ON PLU=ON PT OR ?PLATINUM? OR ?PLATIN?  
 L200 120 SEA FILE=BABS ABB=ON PLU=ON (6475032/AN OR 5772354/AN OR  
 5998956/AN OR 5715455/AN OR 6149153/AN OR 5929836/AN OR  
 6542249/AN OR 5536535/AN OR 5588619/AN OR 5852591/AN OR  
 5994480/AN OR 6410460/AN OR 5899529/AN OR 5966319/AN OR  
 5999654/AN OR 6172860/AN OR 5598822/AN OR 5750997/AN OR  
 5760059/AN OR 5809983/AN OR 5945497/AN OR 5951532/AN OR  
 6016960/AN OR 6055145/AN OR 6175111/AN OR 6254602/AN OR  
 6272724/AN OR 6440727/AN OR 6569911/AN OR 6624021/AN OR  
 5727676/AN OR 5811230/AN OR 5840979/AN OR 6614959/AN OR  
 5575124/AN OR 5598040/AN OR 5652310/AN OR 5702103/AN OR  
 5725153/AN OR 5728440/AN OR 5767079/AN OR 5840265/AN OR  
 5854579/AN OR 5864192/AN OR 5870291/AN OR 5964875/AN OR

10/583,553

6016604/AN OR 6080965/AN OR 6122422/AN OR 6148237/AN OR  
 6323566/AN OR 6409117/AN OR 6490177/AN OR 6502628/AN OR  
 6604739/AN OR 6622674/AN OR 5511018/AN OR 5533759/AN OR  
 5598975/AN OR 5610600/AN OR 5615311/AN OR 5647315/AN OR  
 5650749/AN OR 5706569/AN OR 5707064/AN OR 5743523/AN OR  
 5744550/AN OR 5760436/AN OR 5777666/AN OR 5793899/AN OR  
 5807117/AN OR 5813636/AN OR 5840261/AN OR 5845889/AN OR  
 5856365/AN OR 5872558/AN OR 5875308/AN OR 5875843/AN OR  
 5876081/AN OR 5887526/AN OR 5898030/AN OR 5911332/AN OR  
 5912418/AN OR 5917251/AN OR 5961001/AN OR 5999340/AN OR  
 6006932/AN OR 6025617/AN OR 6048370/AN OR 6066853/AN OR  
 6074491/AN OR 6074492/AN OR 6075606/AN OR 6121489/AN OR  
 6229467/AN OR 6234143/AN OR 6242981/AN OR 6258910/AN OR  
 6284025/AN OR 6309327/AN OR 6331982/AN OR 6336180/AN OR  
 6357598/AN OR 6357872/AN OR 6360592/AN OR 6417937/AN OR  
 6421925/AN OR 6447328/AN OR 6462570/AN OR 6463618/AN OR  
 6483661/AN OR 6489943/AN OR 6508367/AN OR 6515954/AN OR  
 6535085/AN OR 6561393/AN OR 6563403/AN OR 6592564/AN OR  
 6595473/AN OR 6604494/AN)

L201 15 SEA FILE=BABS ABB=ON PLU=ON L200 AND L73  
 L202 0 SEA FILE=BABS ABB=ON PLU=ON L201 AND (L10 OR L11 OR L12 OR  
 L13)  
 L203 15 SEA FILE=BABS ABB=ON PLU=ON L201 NOT L202  
 L204 14 SEA FILE=BABS ABB=ON PLU=ON L203 AND L14  
 L205 10 SEA FILE=BABS ABB=ON PLU=ON L204 AND (L60 OR L17 OR L18 OR  
 L19 OR (L20 OR L21) OR L79 OR (L23 OR L24 OR L25 OR L26))  
 L206 14 SEA FILE=BABS ABB=ON PLU=ON (L204 OR L205)

=> d que stat l208  
 L74 STR



VAR G3=AK/CY  
 REP G4=(0-20) A  
 VAR G5=7/8  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 8  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE  
 L208 189 SEA FILE=WPIX SSS FUL L74

100.0% PROCESSED          693 ITERATIONS                      189 ANSWERS  
 SEARCH TIME: 00.00.05

=&gt; d que nos 1223

```

L10      QUE ABB=ON PLU=ON JUST, E?/AU
L11      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L12      QUE ABB=ON PLU=ON JENKNER, P?/AU
L15      QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005
L32      QUE ABB=ON PLU=ON C07F0007-14/IPC
L73      QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O
        R ?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKA
        NOL?

L74      STR
L208     189 SEA FILE=WPIX SSS FUL L74
L209     259 SEA FILE=WPIX ABB=ON PLU=ON (RAAFCZ/DCN OR RAAJJS/DCN OR
        RAAJJV/DCN OR RAAJX/DCN OR RAATNQ/DCN OR RAATNS/DCN OR
        RAAVHW/DCN OR RAAVHX/DCN OR RAAVHY/DCN OR RAAVHZ/DCN OR
        RAA084/DCN OR RAA085/DCN OR RAA086/DCN OR RAA087/DCN OR
        RABBOM/DCN OR RABBON/DCN OR RABBOO/DCN OR RABBOP/DCN OR
        RABBOQ/DCN OR RABBOR/DCN OR RABBOS/DCN OR RABBOT/DCN OR
        RABSDL/DCN OR RABS1Q/DCN OR RACAM1/DCN OR RACKP5/DCN OR
        RACKP7/DCN OR RACYKW/DCN OR RACYKX/DCN OR RADGO2/DCN OR
        RADGO5/DCN OR RADLCJ/DCN OR RAD02W/DCN OR RAD21F/DCN OR
        RAD21N/DCN OR RAD4AM/DCN OR RAD5N4/DCN OR RAEFNM/DCN OR
        RAEFNY/DCN OR RAERZS/DCN OR RAEXYM/DCN OR RAEXYN/DCN OR
        RAEXYO/DCN OR RAEXYP/DCN OR RAEXYM/DCN OR RAEXYO/DCN OR
        RAEXYP/DCN OR RAEXYQ/DCN OR RAEDNP/DCN OR RAED61/DCN OR
        RAFFW2/DCN OR RAFFW3/DCN OR RAFFDC/DCN OR RAFFDF/DCN OR
        RAF39M/DCN OR RAGBO7/DCN OR RAGBO8/DCN OR RAGTM1/DCN OR
        RAG5ZW/DCN OR RAG6EX/DCN OR RAG6F0/DCN OR RAG6F1/DCN OR
        RAHTJ1/DCN OR RAH3UB/DCN OR RAH3UC/DCN OR RAIDFE/DCN OR
        RAIDF4/DCN OR RAIFNX/DCN OR RAINF6/DCN OR RAIVNE/DCN OR
        RAJULZ/DCN OR RAJ41Y/DCN OR RAKKQ9/DCN OR RALDJJ/DCN OR
        RALR2C/DCN OR RALR2D/DCN OR RALR2E/DCN OR RALR2F/DCN OR
        RALR2G/DCN OR RALR2H/DCN OR RALR2I/DCN OR RALR2J/DCN OR
        RALR2K/DCN OR RALVNH/DCN OR RALVNI/DCN OR RALWQ4/DCN OR
        RAM3BG/DCN OR RAM3BH/DCN OR RAM3BK/DCN OR RAM58J/DCN OR
        RANFCG/DCN OR RANFCH/DCN OR RANFCI/DCN OR RANFCJ/DCN OR
        RANFCK/DCN OR RAONLS/DCN OR RAQSNB/DCN OR RAQVPA/DCN OR
        RAQVPB/DCN OR RAQVP9/DCN OR RAQ417/DCN OR RAR4BE/DCN OR
        RAR4KQ/DCN OR RAR4KR/DCN OR RAR4KV/DCN OR RAR8QC/DCN OR
        RA0EPA/DCN OR RA0EPB/DCN OR RA0EPC/DCN OR RA0EPD/DCN OR
        RA0EPE/DCN OR RA0EPF/DCN OR RA0EPI/DCN OR RA0EP2/DCN OR
        RA0EP9/DCN OR RA0HJ3/DCN OR RA0OIO/DCN OR RA0OKN/DCN OR
        RA0OKP/DCN OR RA0OKR/DCN OR RA0OKS/DCN OR RA0OKT/DCN OR
        RA0OKU/DCN OR RA0OKV/DCN OR RA0OKX/DCN OR RA0OKY/DCN OR
        RA0OKZ/DCN OR RA0OL0/DCN OR RA0OL1/DCN OR RA0OL2/DCN OR
        RA0OL3/DCN OR RA0OL4/DCN OR RA0OL5/DCN OR RA0OL6/DCN OR
        RA0OL7/DCN OR RA0OL8/DCN OR RA0OL

L210     259 SEA FILE=WPIX ABB=ON PLU=ON L208/DCR
L211     259 SEA FILE=WPIX ABB=ON PLU=ON (L209 OR L210)
L212     23 SEA FILE=WPIX ABB=ON PLU=ON L209 (P) (M710 OR M720)/M0,M1,M2,
        M3,M4,M5,M6

L213     0 SEA FILE=WPIX ABB=ON PLU=ON L211 AND L32
L214     7 SEA FILE=WPIX ABB=ON PLU=ON L212 AND L73
L215     QUE ABB=ON PLU=ON ((H40? OR H42? OR H46? OR H48?)(P)M7
        30)/M0,M1,M2,M3,M4,M5,M6

L216     3 SEA FILE=WPIX ABB=ON PLU=ON L212 AND L215
L217     2 SEA FILE=WPIX ABB=ON PLU=ON L214 AND L216
L218     8 SEA FILE=WPIX ABB=ON PLU=ON L213 OR L214 OR L216 OR L217
L219     8 SEA FILE=WPIX ABB=ON PLU=ON L214 OR L216
L220     8 SEA FILE=WPIX ABB=ON PLU=ON (L218 OR L219)

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10/583,553

L221 0 SEA FILE=WPIX ABB=ON PLU=ON L220 AND (L10 OR L11 OR L12)  
L222 8 SEA FILE=WPIX ABB=ON PLU=ON L220 NOT L221  
L223 8 SEA FILE=WPIX ABB=ON PLU=ON L222 AND L15

=> d his 1229

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 14:13:01 ON 30 OCT 2007)  
L229 4 S L228 AND L15

=> d que nos 1229

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS, SO, PA  
L15 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005  
L32 QUE ABB=ON PLU=ON C07F0007-14/IPC  
L74 STR  
L76 2634 SEA FILE=REGISTRY SSS FUL L74  
L224 760 SEA FILE=REGISTRY ABB=ON PLU=ON L76 AND (USPATFULL OR USPAT2  
OR USPATOLD)/LC  
L225 955 SEA L224  
L226 5 SEA L225 AND L32  
L227 1 SEA L226 AND (L10 OR L11 OR L12 OR L13)  
L228 4 SEA L226 NOT L227  
L229 4 SEA L228 AND L15

=> dup rem 1191 1196 1238 1206 1223 1229  
DUPLICATE IS NOT AVAILABLE IN 'CHEMINFORMRX'.  
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
FILE 'CASREACT' ENTERED AT 14:43:26 ON 30 OCT 2007  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
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FILE 'CHEMINFORMRX' ENTERED AT 14:43:26 ON 30 OCT 2007  
COPYRIGHT (C) FIZ-CHEMIE BERLIN

FILE 'HCAPLUS' ENTERED AT 14:43:26 ON 30 OCT 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE 'BABS' ENTERED AT 14:43:26 ON 30 OCT 2007  
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licensed to Beilstein GmbH and MDL Information Systems GmbH

FILE 'WPIX' ENTERED AT 14:43:26 ON 30 OCT 2007  
COPYRIGHT (C) 2007 THE THOMSON CORPORATION

FILE 'USPATFULL' ENTERED AT 14:43:26 ON 30 OCT 2007  
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)  
PROCESSING COMPLETED FOR L191  
PROCESSING COMPLETED FOR L196  
PROCESSING COMPLETED FOR L238  
PROCESSING COMPLETED FOR L206  
PROCESSING COMPLETED FOR L223  
PROCESSING COMPLETED FOR L229  
L239 62 DUP REM L191 L196 L238 L206 L223 L229 (5 DUPLICATES REMOVED)  
ANSWERS '1-18' FROM FILE CASREACT

10/583,553

ANSWERS '19-24' FROM FILE CHEMINFORMRX  
ANSWERS '25-40' FROM FILE HCAPLUS  
ANSWERS '41-52' FROM FILE BABS  
ANSWERS '53-60' FROM FILE WPIX  
ANSWERS '61-62' FROM FILE USPATFULL

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 14:43:45 ON 30 OCT 2007  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Oct 26, 2007 (20071026/UP).

=&gt; d ibib ab fhht

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 1 OF 62 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 123:228510 CASREACT Full-text

TITLE: Preparation of allyl(alkyl)silanes by hydrosilylation of alkenes with allyldichlorosilane or allyldimethoxysilane

INVENTOR(S): Jung, Il N.; Yoo, Bok R.; Lee, Bong W.; Suk, Mi-yeon

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

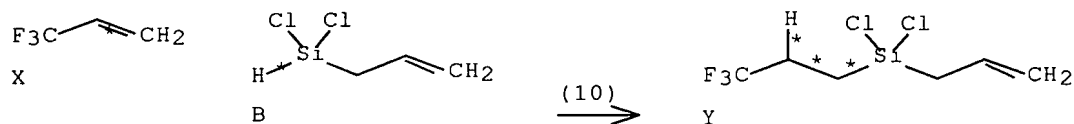
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5420323	A	19950530	US 1994-302429	19940908
KR 141464	B1	19980701	KR 1993-26069	19931201
JP 07206872	A	19950808	JP 1993-327086	19931224
			KR 1993-26069	19931201

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 123:228510

AB Title compds. CH<sub>2</sub>:CHCH<sub>2</sub>SiX<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>R [X = Cl, Cl-4 alkoxy; R = Ph, CH<sub>2</sub>Cl, C<sub>n</sub>H<sub>2n</sub>Me (n = 0-15), SiMemCl<sub>3</sub>-m (m = 0-3), CF<sub>3</sub>, CH<sub>2</sub>CF<sub>3</sub>, CN, CH<sub>2</sub>CN, glycidyloxymethyl, CH<sub>2</sub>SiMemCl<sub>3</sub>-m (m = 0-3), SiMem(OR<sub>1</sub>)<sub>3</sub>-m (m = 0-3; R<sub>1</sub> = Me, Et), CH<sub>2</sub>SiMem(OR<sub>1</sub>)<sub>3</sub>-m (m = 0-3; same R<sub>1</sub>), PhCH<sub>2</sub>Cl [sic], cyclohexenyl] are claimed. The title compds. are prepared by hydrosilylation of CH<sub>2</sub>:CHCH<sub>2</sub>SiX<sub>2</sub>H (same X) with CH<sub>2</sub>:CHR (same R) in presence of a catalyst, chosen from chloroplatinic acid, Pt on silica, tributylamine, and inorg. compds. of Pd, Rh, or Ni. In an example, reaction of vinyltrimethylchlorosilane 0.21 mol with allyldichlorosilane 0.07 mol and 50 μL of 1% chloroplatinic acid in iPrOH at 80° for 30 min gave 89% 7-methyl-4,4,7-trichloro-4,7-disila-1-octene.

RX(10) OF 39 X + B ==> YRX(10) RCT X 677-21-4

STAGE(1)

CAT 16941-12-1 H2PtCl6

SOL 67-63-0 Me2CHOH

STAGE(2)

RCT B 3937-28-8PRO Y 867-37-8

=&gt; d ibib ab fhit 2-18

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 2 OF 62 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 3  
 ACCESSION NUMBER: 106:196605 CASREACT Full-text  
 TITLE: Fluorosilanes and process for their preparation  
 INVENTOR(S): Boutevin, Bernard; Pietrasanta, Yves  
 PATENT ASSIGNEE(S): Atochem S. A., Fr.  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

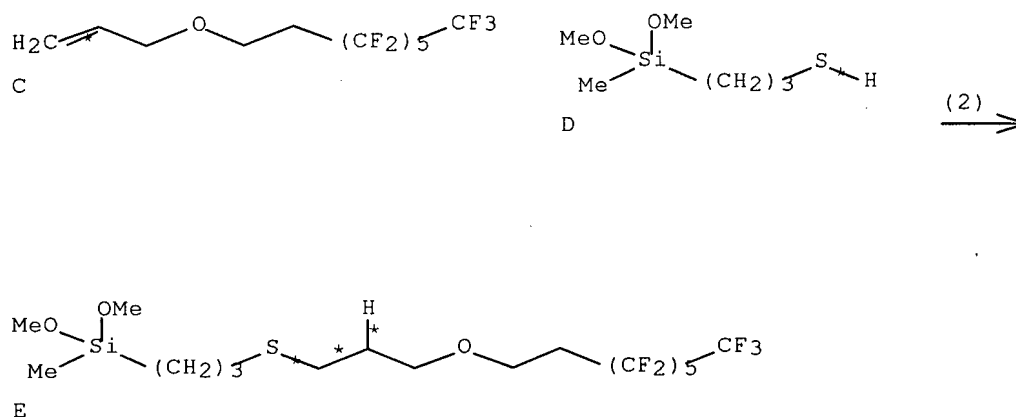
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4633004	A	19861230	US 1985-797002	19851112
FR 2573079	A1	19860516	FR 1984-17279	19841113
FR 2573079	B1	19870814		
EP 184479	A1	19860611	EP 1985-402142	19851106
EP 184479	B1	19881109		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 38518	T	19881115	AT 1985-402142	19851106
AU 8549781	A	19860522	AU 1985-49781	19851112
AU 576404	B2	19880825		
ES 548806	A1	19861201	ES 1985-548806	19851112
CA 1247119	A1	19881220	CA 1985-495074	19851112
JP 61122291	A	19860610	JP 1985-254630	19851113
PRIORITY APPLN. INFO.:			FR 1984-17279	19841113
			EP 1985-402142	19851106

OTHER SOURCE(S): MARPAT 106:196605

AB R4[QS(CH2)nSiR1R2R3]m (I; R1 = halo, alkoxy; R2,R3 = H, halo, alkoxy, alkyl, aryl; R4 = fluorinated hydrocarbyl; Q = bivalent group having at least one O atom; n = 2,3; m = 1,2), useful in the preparation of fluorosilicone elastomers, are prepared by addition of a thiosilane to a fluorinated olefin. An MeCN solution containing 0.025 mol C6F13CH2CH2OCH2CH:CH2 and 0.026 mol (MeO)2MeSiCH2CH2CH2SH was heated at 80° for 4 h under N in the presence of AIBN to give 12.4 g I (R1 = R2 = MeO, R3 = Me, R4 = C6F13, Q = CH2CH2OCH2CH2CH2, n = 3, m = 1).

RX(2) OF 3 ...C + D ==> E





RX(2)      RCT    C 103628-86-0, D 31001-77-1  
              PRO    E 106177-67-7

L239 ANSWER 3 OF 62 CASREACT COPYRIGHT 2007 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 100:174900 CASREACT Full-text

TITLE: The reactions of hydrosilanes with trifluoropropene and pentafluorostyrene catalyzed by ruthenium, rhodium and palladium complexes

AUTHOR(S): Ojima, Iwao; Fuchikami, Takamasa; Yatabe, Momoko

CORPORATE SOURCE: Sagami Chem. Res. Cent., Sagamihara, 229, Japan

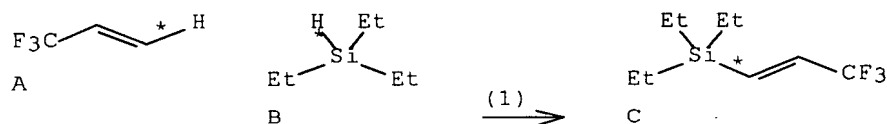
SOURCE: Journal of Organometallic Chemistry (1984),  
 260(3), 335-46  
 CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reactions of hydrosilanes with 3,3,3-trifluoropropene (TFP) and 2,3,4,5,6-pentafluorostyrene (PFS) catalyzed by  $\text{Ru}_3(\text{CO})_{12}$  or  $\text{RhCl}(\text{PPh}_3)_3$  give  $\beta$ -Rf-vinylsilane (I) and/or  $\beta$ -Rf-ethylsilane (II) (Rf = perfluorocarbon group). The I-II ratio is highly dependent on the nature of hydrosilane used. The Ru catalyst favors the formation of I compared with the Rh catalyst. Neither  $\alpha$ -Rf-vinylsilane nor  $\alpha$ -Rf-ethylsilane was formed at all. Possible mechanisms which can accommodate characteristic features of these reactions are discussed. The hydrosilylation of TFP with  $\text{HSiMe}_2\text{Cl}$  catalyzed by  $\text{PdCl}_2(\text{PhCN})_2/\text{PPh}_3$  gives the  $\alpha$ -adduct  $(\text{F}_3\text{C})_2\text{CHSiMe}_2\text{Cl}$  exclusively, and this is transformed to the corresponding dialkoxysilanes, silanediol, oligosilanediols and cyclic oligosiloxanes.

RX(1) OF 14      A + B ==> C



RX(1) RCT A 677-21-4, B 617-86-7  
 PRO C 84442-90-0  
 CAT 14694-95-2 RhCl(PPh<sub>3</sub>)<sub>3</sub>

L239 ANSWER 4 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 143:405953 CASREACT Full-text

TITLE: Synthesis and some properties of silanes and siloxanes with 5,5,6,6,7,7,7-heptafluoro-4,4-bis(trifluoromethyl)heptyl substituents

AUTHOR(S): Shamaev, A. E.; Ignatenko, A. V.; Krukovsky, S. P.

CORPORATE SOURCE: N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 119991, Russia

SOURCE: Russian Chemical Bulletin (2004), 53(10), 2229-2232

CODEN: RCBUEY; ISSN: 1066-5285

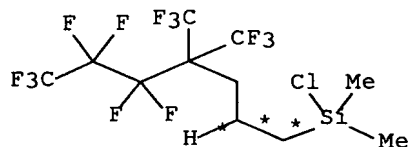
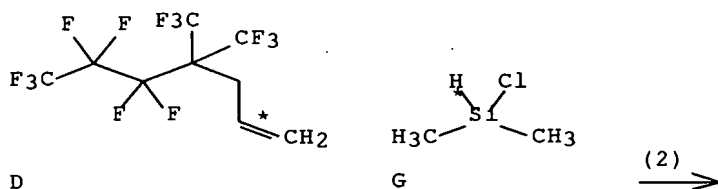
PUBLISHER: Springer Science+Business Media, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Methods for syntheses of new polyfluorinated compds., viz., silanes containing substituents CF<sub>3</sub>CF<sub>2</sub>CF<sub>2</sub>C(CF<sub>3</sub>)<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub> (RF) at the Si atom and 1,3,5-tris(RF)-1,3,5-trimethylcyclotrisiloxane that can be used for the synthesis of fluoro-containing oligo- and polysiloxanes of different structure, were developed. The polymerization of cyclotrisiloxane in the presence of 1,3-divinyltetramethyldisiloxane gave linear oligomers, whose chains contain - (RF)Si(Me)O- units.

RX(2) OF 16 ...D + G ==> H...



YIELD 86%

RX(2) RCT D 72487-68-4, G 1066-35-9

PRO H **134926-09-3**  
 CAT 16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>  
 SOL 109-99-9 THF  
 CON SUBSTAGE(1) 70 deg C  
 SUBSTAGE(2) 2 hours, 70 deg C

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 5 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 141:71714 CASREACT Full-text

TITLE: Process for preparation of alkyl silanes from  
 hydrosilanes and olefins in presence of  
platinum catalyst

INVENTOR(S): Nikolaev, G. A.; Egorov, A. G.; Plashkin, V. S.;  
 Khoroshavina, Yu. V.; Kolokol'tseva, I. G.; Lobkov, V.  
 D.; Kormer, V. A.

PATENT ASSIGNEE(S): Russia

SOURCE: Russ., No pp. given  
 CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

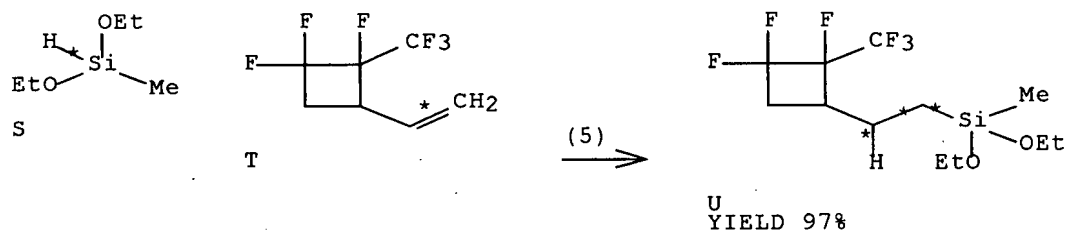
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2219126	C2	20031220	RU 2001-119772	20010716
PRIORITY APPLN. INFO.:			RU 2001-119772	20010716

AB Alkyl silanes are prepared by reaction of hydrosilanes SiR<sub>b</sub>XaH<sub>4</sub>-(a+b) (a = 1-2; b = 0-1) with olefins in presence of a platinum-containing catalyst at elevated temperature such that the catalyst and some or all of the hydrosilane are mixed at room temperature and then heated, after which the mixture is held for ≥0.5 h without addnl. heating, and then the remaining reagents are added; the product is isolated by vacuum distillation In an example, 0.2 mol PhSi(H)Cl<sub>2</sub> and 0.53 mL of a solution of (acac)<sub>2</sub>Pt in acetone ([Pt] = 10<sup>-4</sup> g-atom/mL) are heated at 170° for 1.5 h, after which the mixture was held for 24 h, followed by treatment with 0.85 mol PhSi(H)Cl<sub>2</sub> and 1.05 mol 1-hexene and refluxing for 1 h, and recovery of product by vacuum distillation gave 98% PhSi(CH<sub>2</sub>CH<sub>2</sub>Bu)Cl<sub>2</sub>.

RX(5) OF 9 S + T ==> U



RX(5) RCT S 2031-62-1

## STAGE(1)

CAT 7440-06-4D Pt  
 CON SUBSTAGE(1) room temperature  
 SUBSTAGE(2) 50 minutes, 95 deg C  
 SUBSTAGE(3) 6 hours

## STAGE(2)

RCT T 116850-32-9  
 CON SUBSTAGE(2) 1 hour, reflux

PRO U 709612-15-7

L239 ANSWER 6 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 136:263266 CASREACT Full-text

TITLE: Method for preparation of polyfluoro organosilicon  
 compounds by hydrosilylation of polyfluoroolefins with  
 hydrosilanes

INVENTOR(S): Choi, Jun Chul; Sakakura, Toshiyasu

PATENT ASSIGNEE(S): Sangyo Gijutsu Sogo Kenkyusho, Japan; National  
 Institute of Advanced Industrial Science and  
 Technology

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

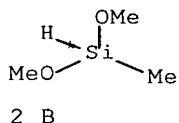
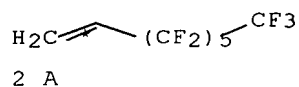
## PATENT INFORMATION:

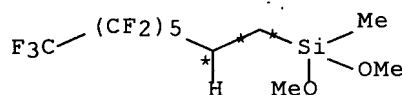
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002088090	A	20020327	JP 2000-280005	20000914
JP 3530929	B2	20040524		

## PRIORITY APPLN. INFO.:

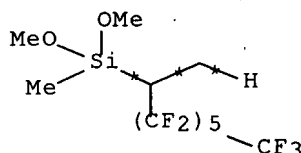
JP 2000-280005 20000914

AB Polyfluoro organosilicon compds. are efficiently prepared in high yields with industrial advantage by direct hydrosilylation of polyfluoroolefins with hydrosilanes in the presence of a transition metal complex of polyfluorophosphine ligands using supercrit. or liquefied carbon dioxide as the solvent. The transition metal complexes are Ru, Rh, Ir, Ni, Pd, or Pt complexes. These organosilicon compds. are useful as silane coupling agents having perfluoroalkyl groups. Thus, 5 mg dichlorotris(tri-p-trifluoromethylphenylphosphine)ruthenium, 0.35 g 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene, and 0.22 g dimethoxymethylsilane were placed in a 20 mL stainless steel autoclave at room temperature, charged with CO<sub>2</sub> at 60 kg/cm<sup>2</sup>, and heated at 90° and inner pressure of 300 atm for 24 h to give organosilicon compds. consisting of 98% CF<sub>3</sub>(CF<sub>2</sub>)<sub>5</sub>CH<sub>2</sub>CH<sub>2</sub>Si(OMe)<sub>2</sub>Me and 2 % CF<sub>3</sub>(CF<sub>2</sub>)<sub>5</sub>CHMeSi(OMe)<sub>2</sub>Me in 74% yields.

RX(1) OF 3 2 A + 2 B ==> C + D



C  
YIELD 74% (98)



D  
YIELD 74% (2)

RX(1) RCT A 25291-17-2, B 16881-77-9  
 PRO C 85857-17-6, D 339286-25-8  
 SOL 124-38-9 CO2  
 NTE hydrosilylation under high-pressure at 90° for 24 h using  
 supercrit. carbon dioxide as solvent

L239 ANSWER 7 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 137:154975 CASREACT Full-text

TITLE: Synthesis of  $\alpha,\omega$ -bissilanes with  
 fluorocarbon chain and surface structures of solid  
 surfaces modified with the silanes

AUTHOR(S): Kondo, Yukishige; Yamaki, Koichi; Yamauchi, Takashi;  
 Azumi, Reiko; Tanaka, Motoo; Matsumoto, Mutsuyoshi;  
 Yoshino, Norio

CORPORATE SOURCE: Department of Industrial Chemistry, Faculty of  
 Engineering Institute of Colloid and Interface  
 Science, Tokyo University of Science, Tokyo, 162-8601,  
 Japan

SOURCE: Journal of Oleo Science (2002), 51(5),  
 305-311

CODEN: JOSOAP; ISSN: 1345-8957

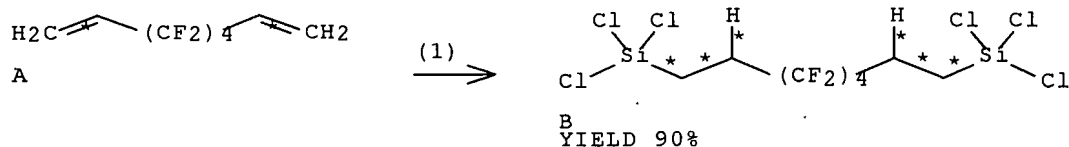
PUBLISHER: Japan Oil Chemists' Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB  $\alpha,\omega$ -Bischlorosilanes,  $\text{Cl}_3\text{SiCH}_2\text{CH}_2(\text{CF}_2)_n\text{CH}_2\text{CH}_2\text{SiCl}_3$  [ $n = 4$  (I), 6 (II) or 8 (III)], were synthesized using hydrosilylation reaction with trichlorosilane of the corresponding  $\alpha,\omega$ -divinylpolyfluoroalkanes,  $\text{CH}_2=\text{CH}(\text{CF}_2)_n\text{CH}=\text{CH}_2$  ( $n = 4, 6$ , or 8), in the presence of hexachloroplatinate (IV) as catalyst at 100°. Two other  $\alpha,\omega$ -bissilanes,  $(\text{CH}_3\text{O})_3\text{SiCH}_2\text{CH}_2(\text{CF}_2)_n\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$  [ $n = 4$  (IV), 6 (V), or 8 (VI)], and  $(\text{OCN})_3\text{SiCH}_2\text{CH}_2(\text{CF}_2)_n\text{CH}_2\text{CH}_2\text{Si}(\text{NCO})_3$  [ $n = 4$  (VII), 6 (VIII), or 8 (IX)], were prepared via reactions of  $\alpha,\omega$ -bischlorosilanes I-III with Na methoxide and Ag cyanate, resp. The structures of Si wafer surfaces modified with the  $\alpha,\omega$ -bismethoxysilanes were studied by polarized FTIR spectroscopy. The bismethoxysilanes reacted with Si wafer surface through only one of the reactive groups,  $-\text{Si}(\text{OCH}_3)_3$ , thereby forming no loop structure on the surface.

RX(1) OF 15 A ==> B...



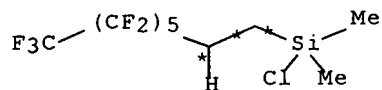
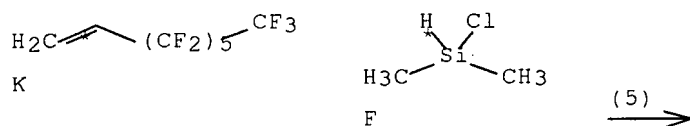
RX(1) RCT A 678-65-9  
 RGT C 10025-78-2 HSiCl<sub>3</sub>  
 PRO B 193622-77-4  
 CAT 16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>  
 NTE regioselective

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 8 OF 62 CASREACT COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 135:257287 CASREACT Full-text  
 TITLE: Recycling of Rhodium-Based Hydrosilylation Catalysts;  
 A Fluorous Approach  
 AUTHOR(S): de Wolf, Elwin; Speets, Emiel A.; Deelman, Berth-Jan;  
 van Koten, Gerard  
 CORPORATE SOURCE: Debye Institute Department of Metal-Mediated  
 Synthesis, Utrecht University, Utrecht, NL-3584 CH,  
 Neth.  
 SOURCE: Organometallics (2001), 20(17), 3686-3690  
 CODEN: ORGND7; ISSN: 0276-7333  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The concept of fluorous biphasic separation was applied in the recycling of Rh-based catalysts for the hydrosilylation of 1-alkenes and fluorinated 1-alkenes by following two approaches. Hydrosilylation of 1-hexene using various silanes and fluorous versions of Wilkinson's catalyst [RhCl(P(C<sub>6</sub>H<sub>4</sub>-4-SiMe<sub>2</sub>Rf)<sub>3</sub>)<sub>3</sub>] (1; Rf = CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>F<sub>13</sub>) or [RhCl(P(C<sub>6</sub>H<sub>4</sub>-4-SiMe(Rf)<sub>2</sub>)<sub>3</sub>)<sub>3</sub>] (2; Rf = CH<sub>2</sub>CH<sub>2</sub>C<sub>8</sub>F<sub>17</sub>) in fluorous biphasic solvent systems afforded the corresponding n-hexylsilanes in high yield. The catalyst activities were similar to those obtained using conventional [RhCl(PPh<sub>3</sub>)<sub>3</sub>]. The fluorous phase containing the catalyst was recycled at least twice without noticeable loss of activity, despite the fact that 12 and 1.7% of [Rh] was lost for 1 and 2, resp., in the 1st cycle. The fluorous hydride intermediate [Rh(H)(Cl)(SiCl<sub>3</sub>)(P(C<sub>6</sub>H<sub>4</sub>-4-SiMe<sub>2</sub>Rf)<sub>3</sub>)<sub>2</sub>] (3; Rf = CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>F<sub>13</sub>) was identified by NMR spectroscopy. In a reverse approach, the original Wilkinson's catalyst was used for the hydrosilylation of 1H,1H,2H-perfluoro-1-alkenes RCH:CH<sub>2</sub> (R = C<sub>6</sub>H<sub>13</sub>, C<sub>8</sub>F<sub>17</sub>, C<sub>10</sub>F<sub>21</sub>) in benzene or toluene as solvent. Fluorous extraction of the products enabled recycling of the nonfluorous catalyst.

RX(5) OF 10 K + F ==> L



<sup>L</sup>  
YIELD 79%

RX(5) RCT K 25291-17-2, F 1066-35-9

PRO L 102488-47-1

CAT 14694-95-2 RhCl(PPh<sub>3</sub>)<sub>3</sub>

SOL 71-43-2 Benzene

NTE regioselective, reflux, 15 h

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 9 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 134:353345 CASREACT Full-text

TITLE: Hydrosilation of polyfluoroolefin in dense carbon dioxide

AUTHOR(S): He, L.-N.; Choi, J.-C.; Sakakura, T.

CORPORATE SOURCE: National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305-8565, Japan

SOURCE: Tetrahedron Letters (2001), 42(11), 2169-2171

CODEN: TELEAY; ISSN: 0040-4039

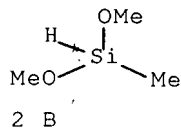
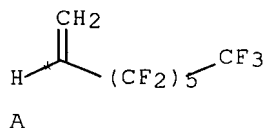
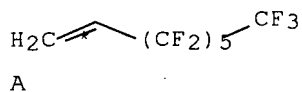
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

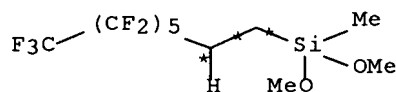
LANGUAGE: English

AB Ruthenium and rhodium phosphine complexes catalyze the hydrosilation of olefins in dense carbon dioxide. The incorporation of polyfluorinated phosphine ligands in the conventional hydrosilation catalysts provides enhanced solubility in dense carbon dioxide resulting in a higher catalytic activity and selectivity; the best result was obtained using RuCl<sub>2</sub>[P(C<sub>6</sub>H<sub>4</sub>-p-CF<sub>3</sub>)<sub>3</sub>]<sub>3</sub>. The reaction is applicable to the synthesis of a fluorous silane coupling agent. Thus, RuCl<sub>2</sub>[P(C<sub>6</sub>H<sub>4</sub>-p-CF<sub>3</sub>)<sub>3</sub>]<sub>3</sub>-catalyzed hydrosilation of RfCH:CH<sub>2</sub> with HSi(OMe)<sub>2</sub>Me in carbon dioxide at 90° gave 93% RfCH<sub>2</sub>CH<sub>2</sub>Si(OMe)<sub>2</sub>Me (Rf = C<sub>6</sub>F<sub>13</sub>).

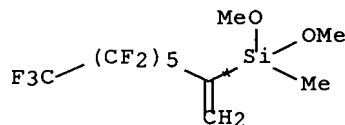
RX(1) OF 11 2 A + 2 B ==> C +  
D



(1) →



YIELD 6% (51)



YIELD 6% (49)

RX(1) RCT A 25291-17-2, B 16881-77-9  
 PRO C 85857-17-6, D 339286-26-9  
 CAT 339286-28-1 Ruthenium, dichlorotris[tris(4-(trifluoromethyl)phenyl)phosphine-κP]-  
 SOL 109-99-9 THF

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

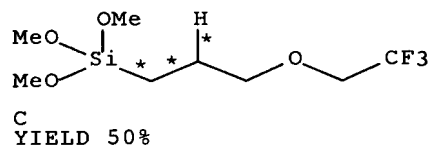
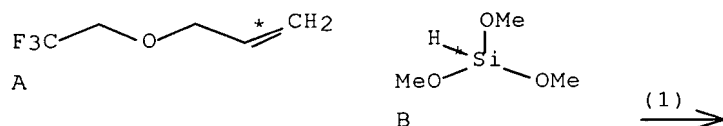
L239 ANSWER 10 OF 62 CASREACT COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 127:34359 CASREACT Full-text  
 TITLE: Preparation of fluorine-containing organosilicon compounds  
 INVENTOR(S): Aoki, Takanori; Ishimura, Yoshimasa  
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09124663	A	19970513	JP 1995-282005	19951030
JP 3774917	B2	20060517		
PRIORITY APPLN. INFO.:			JP 1995-282005	19951030
OTHER SOURCE(S):		MARPAT 127:34359		



AB The title compds.  $\text{F}_3\text{CCH}_2\text{O}(\text{CH}_2)_3\text{Si}(\text{OR})_3$  (I; R = Me, Et) are prepared I are useful as rubber-surface lubricants, stain-proofing, water-proofing, oil-proofing agents. Thus,  $\text{F}_3\text{CCH}_2\text{OCH}_2\text{CH}=\text{CH}_2$  was reacted with  $(\text{MeO})_3\text{SiH}$  in the presence of  $\text{H}_2(\text{PtCl}_6)$  to give 49.9% I (R = Me), which was tested and showed good properties of stain-proofing, water-proofing, oil-proofing, and rubber-surface lubricating.

RX(1) OF 1      A + B ==> C



RX(1)      RCT    A 1524-54-5, B 2487-90-3  
              PRO    C 189759-28-2  
              CAT    16941-12-1  $\text{H}_2\text{PtCl}_6$   
              SOL    67-63-0  $\text{Me}_2\text{CHOH}$   
              NTE    80° for 5 h

L239 ANSWER 11 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 126:317417 CASREACT Full-text

TITLE: Synthesis of methyl(vinyl)(polyfluoroalkoxy)silanes by  
 photoinitiated radical reaction of  
 dialkoxymethylvinylsilanes with perfluoro-4-methyl-2-  
 pentene

AUTHOR(S): Chernyavskaya, N. A.; Kurykin, M. A.

CORPORATE SOURCE: A. N. Nesmeyanov Inst. Organoelement Compounds,  
 Russian Acad. Sci., Moscow, 117813, Russia

SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya ( 1996), (12), 2976-2978  
 CODEN: IASKEA

PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo  
 Rossiiskoi Akademii Nauk

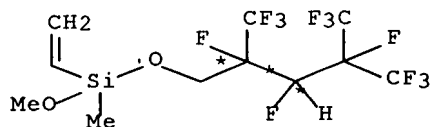
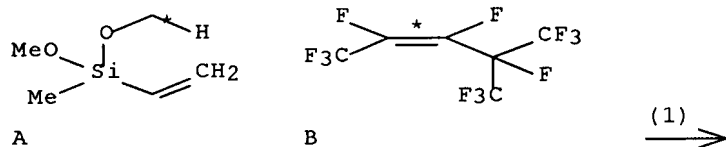
DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A new method was elaborated for the synthesis of vinylsilanes with  
 polyfluoroalkoxy substituents at the Si atom by photoinitiated radical  
 reaction of dialkoxymethylvinylsilanes with  $\text{CF}_3\text{CF}=\text{CF}(\text{CF}_3)_2$  in the presence  
 of  $\text{Me}_3\text{COOCMe}_3$  at room temperature Thus, UV irradiation of  $\text{CH}_2=\text{CHSi}(\text{OCHR}_2)_2\text{Me}$

(R = H, Me) with CF<sub>3</sub>CF:CF(CF<sub>3</sub>)<sub>2</sub> in presence of Me<sub>3</sub>COOCMe<sub>3</sub> at 20° gave 90-99% CH<sub>2</sub>:CHSi(Me)(OCHR<sub>2</sub>)OCR<sub>2</sub>CF(CF<sub>3</sub>)CHF(CF<sub>3</sub>)<sub>2</sub> as mixts. of diastereomers.

RX(1) OF 2      A + B ==> C



C  
YIELD 90%

RX(1)      RCT    A 16753-62-1, B 2070-70-4  
              PRO    C 189337-41-5  
              CAT    110-05-4 t-Bu peroxide  
              NTE    photochem.

L239 ANSWER 12 OF 62    CASREACT    COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER:      121:57693    CASREACT    Full-text  
 TITLE:                    Single component inorganic/organic network materials  
                                  and precursors thereof  
 INVENTOR(S):             Michalczyk, Michael Joseph; Sharp, Kenneth George  
 PATENT ASSIGNEE(S):      du Pont de Nemours, E. I., and Co., USA  
 SOURCE:                    PCT Int. Appl., 76 pp.  
                                  CODEN: PIXXD2  
 DOCUMENT TYPE:           Patent  
 LANGUAGE:                English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

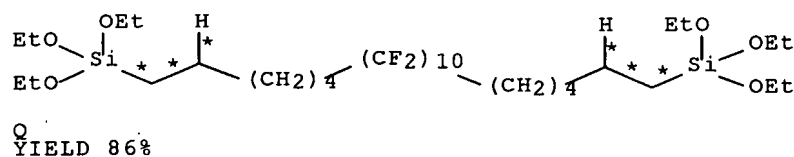
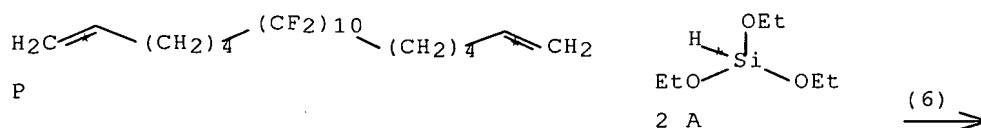
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9406807	A1	19940331	WO 1993-US8685	19930915
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5378790	A	19950103	US 1993-120995	19930913
EP 660839	A1	19950705	EP 1993-921578	19930915
EP 660839	B1	20001122		
EP 660839	B2	20060208		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				

JP 08505363	T	19960611	JP 1993-508262	19930915
AT 197713	T	20001215	AT 1993-921578	19930915
CA 2144639	C	20020723	CA 1993-2144639	19930915

PRIORITY APPLN. INFO.:  
 US 1992-945777 19920916  
 US 1993-120995 19930913  
 WO 1993-US8685 19930915

OTHER SOURCE(S): MARPAT 121:57693

AB Single component inorg./organic network materials incorporating the phys. properties of glasses with the flexibility of organic materials of empirical formula  $X(\text{SiO}_{1.5})_n$  [ $n \geq 2$ ;  $X$  = one or more flexible organic linkages, e.g.,  $\text{RlmSiY}_4\text{-m}$ ,  $\text{Y}(\text{CF}_2)_p\text{Y}$ , ring structures I;  $x = 1\text{-}3$ ;  $Z = \text{C1-4 alkyl}$ , 3,3,3-trifluoropropyl, aralkyl, aryl;  $Y = (\text{CR}_2\text{R}_3)_k\text{CR}_4\text{R}_5\text{CR}_6\text{R}_7(\text{CR}_8\text{R}_9)_h\text{-}$ ;  $\text{R}_1 = \text{C1-8 alkyl}$ , aryl;  $\text{R}_2\text{-R}_9 = \text{H}$ ,  $\text{C1-8 alkyl}$ , aryl, provided that at least one of  $\text{R}_4\text{-R}_7 = \text{H}$ ;  $m = 0\text{-}2$ ;  $k$  and  $h$  are independently  $0\text{-}10$ , provided that at least one of  $k$  or  $h = 0$ ;  $p = \text{an even integer from } 4\text{-}10$ ] as well as precursors thereof, are disclosed. These compds. are useful as intermediates in one-component room-temperature-curing sealant, adhesive and coating applications among other silicone polymer applications. For example, treating  $(\text{EtO})_3\text{Si}(\text{CH}_2)_6(\text{CF}_2)_{10}(\text{CH}_2)_6\text{Si}(\text{OEt})_3$ , prepared in 86% yield from 5.00 g  $[\text{CH}_2\text{:CH}(\text{CH}_2)_4(\text{CF}_2)_5]_2$ , 5.55 g  $(\text{EtO})_3\text{SiH}$ , and 10 drops Pt catalyst in 20 mL PhMe, with 96%  $\text{HCO}_2\text{H}$  in THF gave a clear yellow gel that dried into a clear yellow glassy disk which, after silylation with bis(trimethylsilyl)acetamide, had a surface energy of 15.2 mN/m, substantially less than that for Teflon.

RX(6) OF 7 P + 2 A ==> Q

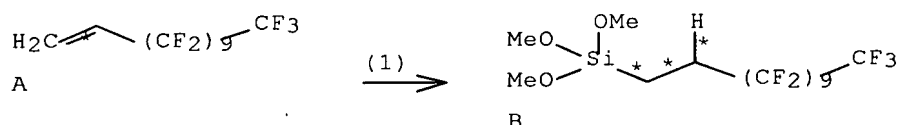
RX(6) RCT P 155881-97-3, A 998-30-1  
 PRO Q 155881-94-0  
 CAT 7440-06-4 Pt  
 SOL 108-88-3 PhMe

L239 ANSWER 13 OF 62 CASREACT COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 119:226037 CASREACT Full-text  
 TITLE: Syntheses and reactions of metal organics. XVIII.  
 Synthesis of (1H,1H,2H,2H-polyfluoroalkyl)trimethoxysilanes and surface

modification of a glass plate  
 AUTHOR(S): Yoshino, Norio; Yamamoto, Yasushi; Hamano, Katsumi;  
 Kawase, Tokuzo  
 CORPORATE SOURCE: Fac. Eng., Sci. Univ. Tokyo, Tokyo, 162, Japan  
 SOURCE: Bulletin of the Chemical Society of Japan ( 1993), 66(6), 1754-8  
 CODEN: BCSJA8; ISSN: 0009-2673  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Four silane coupling agents, (1H,1H,2H,2H-henicosafuorododecyl)trimethoxy silane, (1H,1H,2H,2H-heptadecafluorododecyl)trimethoxysilane, (1H,1H,2H,2H-tridecafluorooctyl)trimethoxysilane, and (1H,1H,2H,2H-nonafluorohexyl)trimethoxysilane were prepared by the hydrosilylation of trichlorosilane with the corresponding 1H,1H,2H-polyfluoro-1-alkene in the presence of hydrogen hexachloroplatinate (IV), followed by reaction with sodium methoxide. The surface modification of a glass plate was attempted using these products. From measurements of the contact angles  $\theta$  (°) of water and oleic acid against a modified glass plate surface, the coupling agents were found to have high modification ability. The modification produced a glass surface with high oxidation resistance.

RX(1) OF 1      A ==> B



RX(1)      RCT    A 30389-25-4

STAGE(1)

RGT    C 10025-78-2 HSiCl<sub>3</sub>  
 CAT    16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>

STAGE(2)

RGT    D 124-41-4 NaOMe  
 SOL    76-13-1 Freon 113, 67-56-1 MeOH

PRO    B 123445-18-1

L239 ANSWER 14 OF 62    CASREACT    COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:    119:28205    CASREACT    Full-text

TITLE:    Syntheses and reactions of metal organics. XVII.  
 Synthesis of silane coupling agents having a  
 fluorocarbon chain and surface modification of glass  
 plates

AUTHOR(S):    Yoshino, Norio; Yamamoto, Yasushi; Seto, Tsuyoshi;  
 Tominaga, Shinichi; Kawase, Tokuzo

CORPORATE SOURCE:    Fac. Eng., Sci. Univ. Tokyo, Tokyo, 162, Japan

SOURCE:    Bulletin of the Chemical Society of Japan ( 1993), 66(2), 472-6

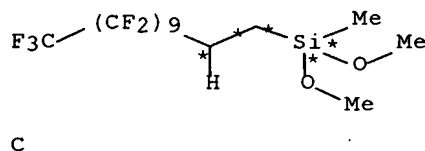
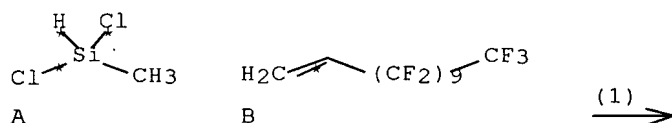
DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Four silane coupling agents, 1H,1H,2H,2H-polyfluoroalkyl(dimethoxy)(methyl)silanes [1H,1H,2H,2H-henicosafuorododecyl(dimethoxy)(methyl)silane, C10F21C2H4Si(CH3)(OCH3)2, 1H,1H,2H,2H-heptadecafluorodecyl(dimethoxy)(methyl)silane, C8F17C2H4Si(CH3)(OCH3)2, 1H,1H,2H,2H-tridecafluorooctyl(dimethoxy)(methyl)silane, C6F13C2H4Si(CH3)(OCH3)2, and 1H,1H,2H,2H-nonafluorohexyl(dimethoxy)(methyl)silane, C4F9C2H4Si(CH3)(OCH3)2], were prepared by the hydrosilylation of dichloro(methyl)silane with the corresponding 1H,1H,2H-polyfluoro-1-alkene in the presence of hydrogen hexachloroplatinate(IV), followed by the reaction with sodium methoxide. The surface modification of glass plate was attempted using these products. From measurements of the contact angles  $\theta(^{\circ})$  of water and oleic acid against a modified glass plate surface, the coupling agents were found to have high modification ability. The oxidation resistance of the modified glass surface was also investigated.

RX(1) OF 1     A + B ==> CRX(1)     RCT   A 75-54-7, B 30389-25-4

STAGE(1)

CAT   16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>

SOL   67-56-1 MeOH

STAGE(2)

RGT   D 124-41-4 NaOMe

SOL   76-13-1 Freon 113

PRO   C 123445-14-7

L239 ANSWER 15 OF 62   CASREACT   COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:     114:185743   CASREACT   Full-text

TITLE:     Fluorinated carboxylic acid derivatives and their

preparation  
 INVENTOR(S): Satoh, Shinichi; Koike, Noriyuki; Fujii, Hideki  
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan  
 SOURCE: Ger. Offen., 22 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4024720	A1	19910207	DE 1990-4024720	19900803
DE 4024720	C2	19991125		
JP 03066695	A	19910322	JP 1989-202115	19890803
JP 07010872	B	19950208		
US 5101057	A	19920331	US 1990-562320	19900803

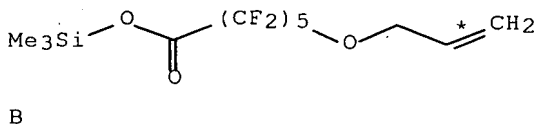
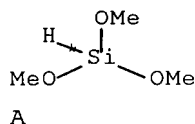
## PRIORITY APPLN. INFO.:

JP 1989-202115 19890803

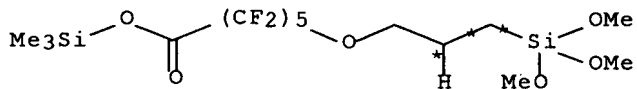
AB The title compds (RO)<sub>n</sub>SiR<sub>13-n</sub>(CH<sub>2</sub>)<sub>3</sub>OCF<sub>2</sub>ZCO<sub>2</sub>X (I; R, R<sub>1</sub> = substituted or unsubstituted hydrocarbyl group; Z = divalent perfluoroalkyl or perfluoro polyether group; X = H, SiR<sub>23</sub>; n = 2, 3) were prepared for use as room-temperature vulcanizing agents for organopolysiloxane elastomers, which in turn were tested as metal corrosion inhibitors. I were prepared by hydrosilylation of alkenyl fluorinated carboxylic acid derivs. with (RO)<sub>n</sub>SiR<sub>13-n</sub>H in the presence of a catalyst, preferably H<sub>2</sub>PtCl<sub>6</sub>. E.g., reaction of 70.0 g CH<sub>2</sub>:CHCH<sub>2</sub>O(CF<sub>2</sub>)<sub>5</sub>CO<sub>2</sub>SiMe<sub>3</sub> with 24.2 g (MeO)<sub>3</sub>SiH in PhMe containing 0.01 g of a 10% aqueous solution of H<sub>2</sub>PtCl<sub>6</sub> gave 95% (MeO)<sub>3</sub>Si(CH<sub>2</sub>)<sub>3</sub>O(CF<sub>2</sub>)<sub>5</sub>CO<sub>2</sub>SiMe<sub>3</sub>.

RX(1) OF 7

...A + B ==&gt; C



(1) →



YIELD 95%

RX(1) RCT A 2487-90-3, B 133304-71-9  
 PRO C 133304-64-0  
 CAT 16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>  
 SOL 108-88-3 PhMe

L239 ANSWER 16 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 117:34314 CASREACT Full-text

TITLE: Preparation and selectivity characteristics of fluorocarbonaceous bonded stationary phase for reverse-phase high-performance liquid chromatography

AUTHOR(S): Konakahara, Takeo; Okada, Shinichiro; Monde, Takashi; Nakayama, Nobuyuki; Furuhashi, Jun; Sugaya, Junichi

CORPORATE SOURCE: Fac. Sci. Technol., Sci. Univ. Tokyo, Noda, 278, Japan

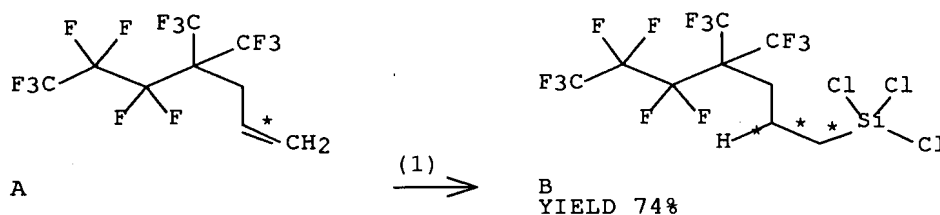
SOURCE: Nippon Kagaku Kaishi (1991), (12), 1638-46

CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB 1H,1H,2H,2H,3H,3H-Tridecafluoro(4,4-dimethylheptyl)silanes (3a-3c) were prepared from the corresponding polyfluoroalkene (1) and silanes HSiXY<sub>2</sub> (2a: X = Y = Cl, 2b: X = Cl, Y = CH<sub>3</sub>, 2c: X = Y = OCH<sub>3</sub>) in the presence of H<sub>2</sub>PtCl<sub>6</sub> in good yields (71-90%). The product silanes (3a, 3b) and dimethyl(1H,1H,2H,2H-tridecafluorooctyl)chlorosilane (4) were used to prepare the corresponding new-type branched- and straight-fluorocarbonaceous bonded stationary phase (PES) for reverse-phase high-performance liquid chromatog. (RP-HPLC). These 3 PFS (polyfluoroalkyl phases were characterized by diffuse reflection FTIR spectra, SEM, silane) combustion anal., N adsorption isotherms, and RP-HPLC. The chromatog. behavior of PFS phases shows an increased selectivity over the octadecyl bonded phase (ODS) for fluoro-, 1,2-difluoro-, 1,2,4-trifluoro-, pentafluoro-, and hexafluorobenzenes, especially for bonded PFS phase showed superior recognition over both the PFS-(4) and ODS phases for 1,3- and 1,4-bis(2,2,2-trifluoro-1-hydroxy-1-trifluoromethylethyl)benzenes. The increases selectivity of PFS for the fluorinated solutes is discussed on the basis of a hydrophobic and/or organophobic interaction between the stationary phase and the solutes.

RX(1) OF 5      A ==> B

RX(1)      RCT    A 72487-68-4  
              RGT    C 16941-12-1 H<sub>2</sub>PtCl<sub>6</sub>, D 10025-78-2 HSiCl<sub>3</sub>  
              PRO    B 130676-80-1

L239 ANSWER 17 OF 62 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 107:23383 CASREACT Full-text

TITLE: Synthesis of polysiloxanes containing fluorine. Part III. Addition of mercaptoalkylsilanes to fluoroolefins

AUTHOR(S): Boutevin, B.; Fleury, E.; Pietrasanta, Y.; Sarraf, L.

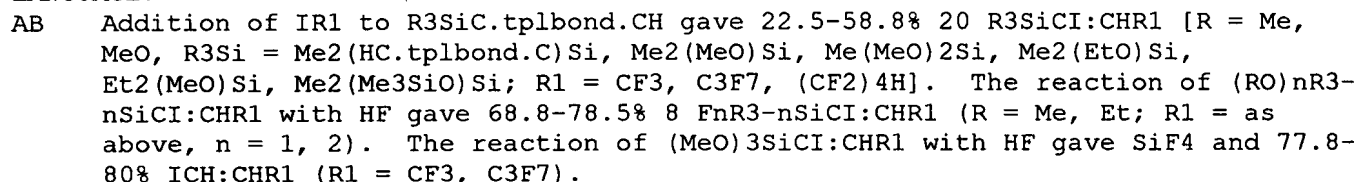
CORPORATE SOURCE: Ec. Natl. Super. Chim. Montpellier, Montpellier,

AB Addns. of  $(\text{MeO})_2\text{Si}(\text{Me})(\text{CH}_2)_3\text{SH}$  to  $\text{F13C6}(\text{CH}_2)_2\text{OCH}_2\text{CH}:\text{CH}_2$  gave monoaddn. product  $\text{F13C6}(\text{CH}_2)_2\text{O}(\text{CH}_2)_3\text{S}(\text{CH}_2)_3\text{Si}(\text{Me})(\text{OMe})_2$  whereas addition to  $\text{F5C6CH}:\text{CH}_2$  gave polyaddn. products as well as monoaddn. compds.

$$\text{H}_2\text{C}=\text{CH}-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-(\text{CF}_2)_5-\text{CF}_3$$
 A

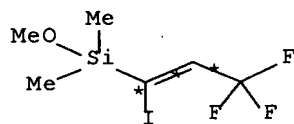
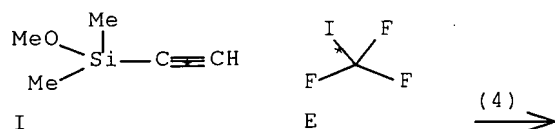
$$\text{MeO}-\text{Si}(\text{Me})(\text{OMe})-(\text{CH}_2)_5-\text{S}-\text{H}$$
 B

(1)





RX(4) OF 40 I + E ==&gt; J...

J  
YIELD 28%

RX(4) RCT I 32957-38-3, E 2314-97-8  
 PRO J 83261-85-2

=&gt; d bib ab fhit 19-24

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 HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 19 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199943123 CHEMINFORMRX Full-text

TI Optically Active Antifungal Azoles. Part 9. An Alternative Synthetic Route  
 for 2-[(1R,2R)-2-(2,4-Difluorophenyl)-2-hydroxy-1-methyl-3-  
 (1H-1,2,4-triazol-1-yl)propyl]-4- [4-(2,2,3,3-tetrafluoropropoxy)phenyl]-  
 3(2H,4H)-1,2,4-triazolone and Its Analogues.

AU KITAZAKI, T.; TASAKA, A.; HOSONO, H.; MATSUSHITA, Y.; ITOH, K.

CS Med. Chem. Lab., Takeda Chem. Ind., Ltd., Yodogawa, Osaka 532, Japan

SO Chem. Pharm. Bull., 47(3), 360-368 (1999)

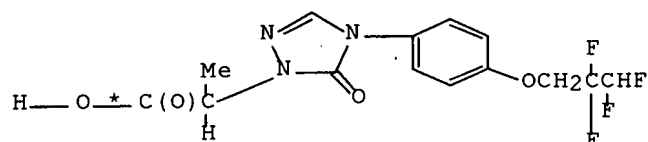
CODEN: CPBTAL ISSN: 0009-2363

LA English

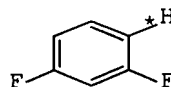
AB A new synthetic route to title compounds (X), (XIII), and (XIV) is  
 established. The key intermediate (V) is prepared starting from esters of (S)-  
 lactic acid, e.g. (I), in a stereocontrolled manner. This propiophenone  
 derivative (V) is converted to the one-carbon-elongated diol (VIII), which is  
 reacted with triazole (IX) to give the target molecule (X). This approach is  
 also applied to the synthesis of analogues (XIII) and (XIV).

RX(9) OF 26 COMPOSED OF RX(2), RX(3)

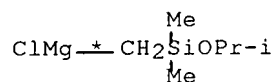
RX(9) C + I + N ==&gt; O



III



IV



VI

2  
STEPS  
→

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

RX(2) RCT III, **702318**, CHIRAL  
IV, 12603 (372-18-9)

STAGE(1)

RGT 230 (79-37-8), (CO-Cl)<sub>2</sub>  
SOL 60 (75-09-2), CH<sub>2</sub>Cl<sub>2</sub>  
CAT 76 (68-12-2), DMF

STAGE(2)

RGT 1150 (7446-70-0), AlCl<sub>3</sub>  
SOL 60 (75-09-2), CH<sub>2</sub>Cl<sub>2</sub>  
T.KW REFLUX

PRO V, 702319, CHIRAL

YDS 61.0 %

EEXP 1 93.0 %

KW acylation; arylation; C-acylation

NTE reaction:III\* 2.(IV) -> V\*

RX(3) RCT V, 702319, CHIRAL  
VI, 37512 (122588-50-5)

SOL 206 (109-99-9), THF

PRO VII, **702320**, CHIRAL

YDS 82.0 %

T 0.0 Cel

EEXP 1 99.0 %

KW Grignard reaction; addition; alkylation; C-alkylation

NTE reaction:V\* (VI) -> VII\*

CMT #E0100:(93% e.e.)

L239 ANSWER 20 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199942077 CHEMINFORMRX Full-text

TI Synthesis and Applications of Fluorous Silyl Protecting Groups with Improved Acid Stability.

AU ROEVER, S.; WIPF, P.

CS Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA 15260, USA

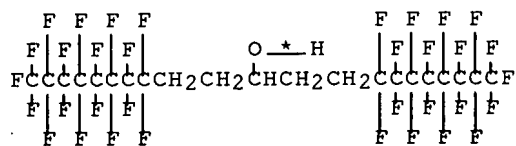
SO Tetrahedron Lett., 40(31), 5667-5670 (**1999**)

CODEN: TELEAY ISSN: 0040-4039

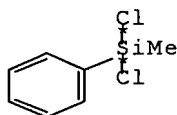
LA English

AB Novel fluorous alkoxy silyl protecting reagents (III) and (VIII) are prepared and evaluated for their acid stability. Compound (VIII) allows protection-purification-deprotection schemes involving liquid-liquid extraction.

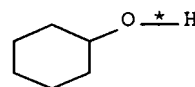
RX(1) OF 21 ...A + B + C ==> D



I



II



IV

(1) →

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

RX(1) RCT I, **699422**  
 II, 51550 (149-74-6)  
 IV, 40 (108-93-0)  
 STAGE(1)  
 RGT 216 (121-44-8), Et3N  
 SOL 60 (75-09-2), CH2Cl2  
 50842 (98-08-8), Ph-CF3  
 T.KW REFLUX  
 TIM 36 hr  
 STAGE(2)  
 RGT 216 (121-44-8), Et3N  
 SOL 60 (75-09-2), CH2Cl2  
 CAT 1134 (1122-58-3), DMAP  
 T 25.0 Cel  
 PRO V, **700729**  
 YDS 36.0 %  
 NTE reaction: I 1.(II) 2.(IV) -> V, example: 1

L239 ANSWER 21 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199736149 CHEMINFORMRX Full-text

TI A Strategic Alternative to Solid Phase Synthesis: Preparation of a Small Isoxazoline Library by "Fluorous Synthesis".

AU STUDER, A.; CURRAN, D. P.

CS Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA 15260, USA

SO Tetrahedron, 53(19), 6681-6696 (1997)

CODEN: TETRAB ISSN: 0040-4020

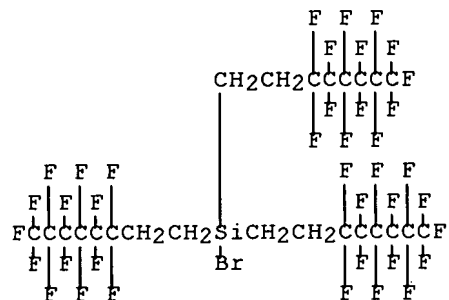
LA English

AB A highly fluorinated silyl group (Sil) is used as "fluorous label" in cycloadditions to give isoxazole derivatives. Thus, the separation and purification at each stage is facilitated and the use of excess reactants and reagents is tolerated. The new methodology presented allows the preparation of the desired heterocycles in high purity without any chromatography.

RX(1) OF 28      A + B ==&gt; C...

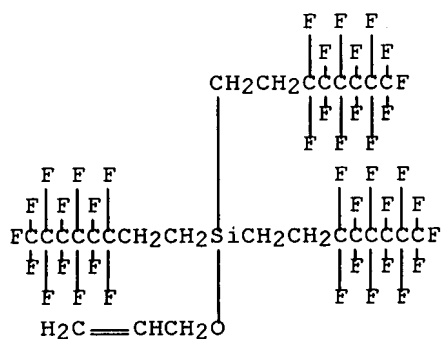
HOCH<sub>2</sub>CH=CH<sub>2</sub>

I



II

(1) →



III

YIELD 45.0%

RX(1)      RCT    I, **2757** (107-18-6)  
                       II, 550321  
                       RGT    216 (121-44-8), Et<sub>3</sub>N  
                       SOL    206 (109-99-9), THF  
                       PRO    III, **550322**  
                       YDS    45.0 %  
                       T      25.0 Cel  
                       NTE    reaction: I (II) -> III, example: 1

L239 ANSWER 22 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199507071 CHEMINFORMRX Full-text

TI Photochemically Induced Exchange of Fluorine and β-Silyl Moieties in 2-Fluorophenyldisilanes.

AU KIRA, M.; TOKURA, S.

CS Photodyn. Res. Cent., Inst. Phys. Chem. Res., Aoba, Sendai 980, Japan

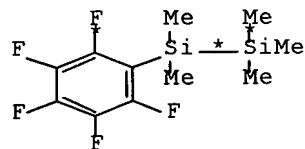
SO Chem. Lett.(8), 1459-1462 (**1994**)

CODEN: CMLTAG ISSN: 0366-7022

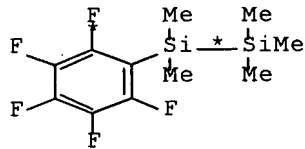
LA English

AB On irradiation of the title disilanes (I) a migration of the silyl group as well as fluorine takes place. In the case of compound (VI) the silyl group migrates to an unsubstituted carbon rather than to a fluorinated center.

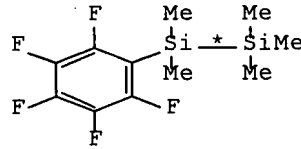
RX(1) OF 4 3 A + B ==&gt; C + D + E



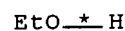
I



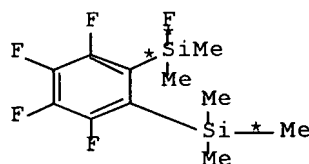
I



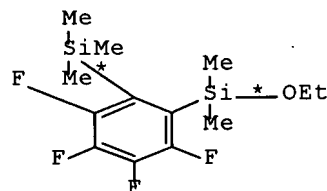
I



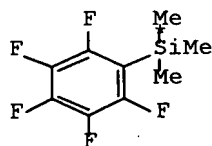
II



III  
YIELD 43.0%



IV  
YIELD 32.0%



V  
YIELD 0.0%

RX(1) RCT I, 362430  
II, **81** (64-17-5)  
SOL 99 (110-54-3), hexane  
PRO III, 362431  
IV, **362432**  
V, 31332 (1206-46-8)  
YDS 75.0 %  
KW halogenation; fluorination; methylation; silylation; alkylation;  
arylation  
NTE reaction: I (II) -> III + IV + V, example: 1

L239 ANSWER 23 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199423188 CHEMINFORMRX Full-text

TI Synthesis of Fungicidal (1H-1,2,4-Triazol-1-yl-methyl)silanes and -siloxanes.

AU LIEBNER, F.; BANKWITZ, U.; RUEHLMANN, K.

CS Inst. Anorg. Chem., TU Dresden, D-01062 Dresden, Germany

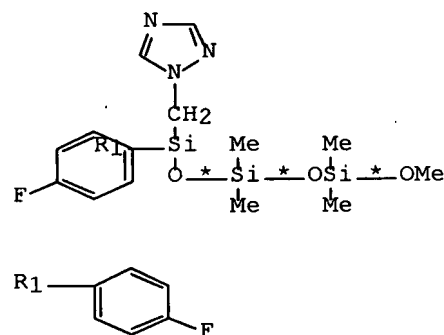
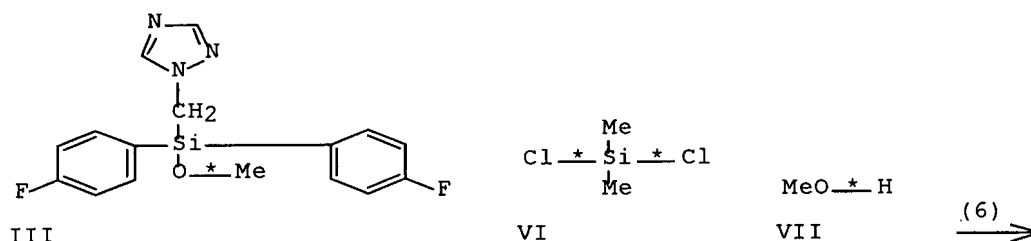
SO Liebigs Ann. Chem.(2), 145-150 (1994)

CODEN: LACHDL ISSN: 0170 2041

LA German

AB The title compounds, e.g. (V) and (VIII), exhibit fungicidal properties. For better adhesion properties the triethoxysilyl group is introduced via hydrosilylation of (Vc) to give (X).

RX(6) OF 12 ...C + S + T ==&gt; U

VIII  
YIELD 56.0%

RX(6) RCT III, 314280  
VI, 1060 (75-78-5)  
VII, **123** (67-56-1)  
STAGE(1)  
SOL 222 (7732-18-5), H2O  
61 (60-29-7), Et2O  
STAGE(2)  
RGT 103 (7647-01-0), HCl  
SOL 61 (60-29-7), Et2O  
159 (109-66-0), pentane  
STAGE(3)  
RGT 187 (110-86-1), Py  
SOL 61 (60-29-7), Et2O

## STAGE(4)

SOL 61 (60-29-7), Et2O

T.KW REFLUX

PRO VIII, 314285

YDS 56.0 %

NTE reaction:III 3.(VI) 4.(VII) -&gt; VIII

CMT Ratio = 4.5:1 for products 1,2

L239 ANSWER 24 OF 62 CHEMINFORMRX COPYRIGHT 2007 FIZ CHEMIE on STN

AN 199343174 CHEMINFORMRX Full-text

TI Synthesis of Functionalized Silyl Triflates from Allylsilanes.

AU UHLIG, W.

CS Fachbereich Chem., Martin-Luther-Univ. Halle-Wittenberg, O-4010 Halle/

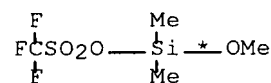
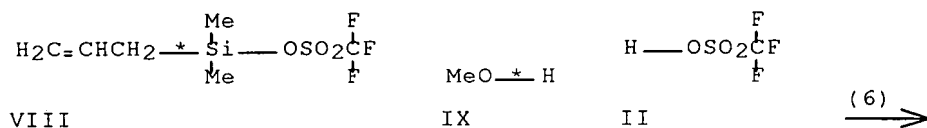
SO J. Organomet. Chem., 452(1), 29-32 (1993)

CODEN: JORCAI ISSN: 0022-328X

LA German

AB The highly reactive silyl triflates are useful reagents for the generation of oligosilanes. New difunctional representatives of this class of compounds, depending on the substitution pattern of the starting derivatives, are prepared by substitution of allyl or phenyl groups at Si by the trifluormethanesulfonyl group. The presence of the electron-withdrawing triflate group controls the displacement rate of a second group by a strong deactivation of the other substituents at Si. This leads to a stepwise substitution on the Si atom. Further synthetic possibilities are demonstrated in the reaction of (VIII) to (X) (most yields not given).

RX(6) OF 9 ...I + J + B ==&gt; K



X

RX(6) RCT VIII, 268456 (150443-41-7)

IX, 123 (67-56-1)

II, 741 (1493-13-6)

STAGE(1)

RGT 216 (121-44-8), Et3N

STAGE(2)

SOL 60 (75-09-2), CH2Cl2

T -20.0 - 25.0 Cel

PRO X, 268457 (119351-10-9)

NTE reaction:VIII 1.(IX) 2.(II) -&gt; X

=&gt; d ibib ed abs hitind hitstr 25-40

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 25 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 1996:734058 HCAPLUS Full-text

DOCUMENT NUMBER: 126:74511

TITLE: Carboxylate Methylenation with a Functionalized Silylmethyl Anion: A Two-Step Synthesis of 2-Substituted Allylic Alcohols from Esters

AUTHOR(S): Mickelson, Tammy J.; Koviach, Jennifer L.; Forsyth, Craig J.

CORPORATE SOURCE: Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455-0431, USA

SOURCE: Journal of Organic Chemistry (1996), 61(26), 9617-9620

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:74511

ED Entered STN: 14 Dec 1996

AB Use of Tamao's hydroxymethyl anion equivalent,  $\text{ClMgCH}_2\text{SiMe}_2\text{OCHMe}_2$ , with stoichiometric  $\text{CeCl}_3$  is effective for the facile conversion of Me esters to isopropoxy-substituted allylic silanes without the necessity of inducing a Peterson-type elimination in a discrete step. The iso-Pr silyl ether, stable under the reaction conditions, undergoes oxidative cleavage of the functionalized allylic silane to give the allylic alc. in high yield.

CC 25-7 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

IT Alcohols, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(allyl; ester methylenation by functionalized silylmethyl anion in allylic alc. preparation)

IT 123987-36-0P 185410-36-0P 185410-37-1P 185410-39-3P

185410-40-6P 185410-41-7P 185410-43-9P 185410-44-0P

185410-45-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(ester methylenation by functionalized silylmethyl anion in allylic alc. preparation)

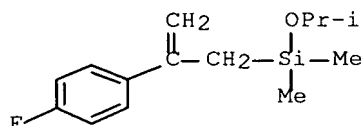
IT 185410-40-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(ester methylenation by functionalized silylmethyl anion in allylic alc. preparation)

RN 185410-40-6 HCAPLUS

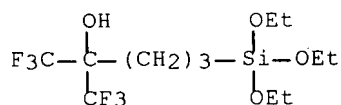
CN Silane, [2-(4-fluorophenyl)-2-propenyl]dimethyl(1-methylethoxy)- (9CI)  
(CA INDEX NAME)





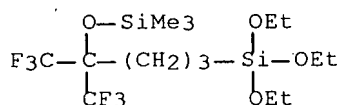
L239 ANSWER 26 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:194284 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:274406  
 TITLE: Process for producing organosilicon compound  
 INVENTOR(S): Komuro, Katsuhiko; Suzuki, Hiroshi  
 PATENT ASSIGNEE(S): Toagosei Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 12 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006021989	A1	20060302	WO 2004-JP12116	20040824 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1783131	A1	20070509	EP 2004-772077	20040824 <--
R: DE, FR				
CN 1972951	A	20070530	CN 2004-80043374	20040824 <--
KR 2007045156	A	20070502	KR 2006-727806	20061229 <--
PRIORITY APPLN. INFO.:			WO 2004-JP12116	W 20040824 <--
OTHER SOURCE(S): MARPAT 144:274406				
ED Entered STN: 03 Mar 2006				
AB The title process comprises reacting trialkoxysilane with CH <sub>2</sub> :CHCH <sub>2</sub> C(CF <sub>3</sub> ) <sub>2</sub> OH (I) to give R <sub>3</sub> Si(CH <sub>2</sub> ) <sub>3</sub> C(CF <sub>3</sub> ) <sub>2</sub> OH (II) [R = alkoxy]. Thus, reaction of triethoxysilane with I in the presence of platinum divinyltetramethyldisiloxane complex at 80°C gave II [R = OEt].				
IC ICM C07F007-18				
CC 29-6 (Organometallic and Organometalloidal Compounds)				
IT <b>753453-64-4P</b>				
RL: RCT (Reactant); <b>SPN (Synthetic preparation); PREP (Preparation)</b> ; RACT (Reactant or reagent)				
(process for producing organosilicon compound by reaction of trialkoxysilane with <u>alkenylalkanol</u> in presence of catalyst)				
IT <b>754199-15-0P</b>				
RL: <b>SPN (Synthetic preparation); PREP (Preparation)</b>				
(process for producing organosilicon compound by reaction of trialkoxysilane with <u>alkenylalkanol</u> in presence of catalyst)				
IT <b>753453-64-4P</b>				
RL: RCT (Reactant); <b>SPN (Synthetic preparation); PREP (Preparation)</b> ; RACT (Reactant or reagent)				
(process for producing organosilicon compound by reaction of trialkoxysilane with <u>alkenylalkanol</u> in presence of catalyst)				
RN 753453-64-4 HCAPLUS				
CN 2-Pentanol, 1,1,1-trifluoro-5-(triethoxysilyl)-2-(trifluoromethyl)- (CA INDEX NAME)				

IT **754199-15-0P**RL: **SPN (Synthetic preparation); PREP (Preparation)**(process for producing organosilicon compound by reaction of trialkoxysilane with alkenylalkanol in presence of catalyst)

RN 754199-15-0 HCAPLUS

CN 3,9-Dioxa-2,8-disilaundecane, 8,8-diethoxy-2,2-dimethyl-4,4-bis(trifluoromethyl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 27 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:485430 HCAPLUS Full-text

DOCUMENT NUMBER: 144:490347

TITLE: Preparation of condensation products of fluorosilanes for use in surface modification

INVENTOR(S): Raab, Klaus

PATENT ASSIGNEE(S): Clariant Produkte (Deutschland) G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

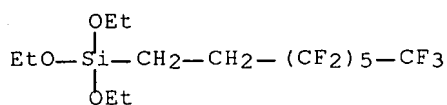
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1659126	A1	20060524	EP 2005-24040	20051104 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
DE 102004056395	A1	20060601	DE 2004-102004056395	20041123 <--
JP 2006143731	A	20060608	JP 2005-336475	20051122 <--
US 2006111581	A1	20060525	US 2005-286526	20051123 <--
BR 2005005105	A	20060711	BR 2005-5105	20051123 <--
PRIORITY APPLN. INFO.:			DE 2004-102004056395A	20041123 <--

OTHER SOURCE(S): MARPAT 144:490347

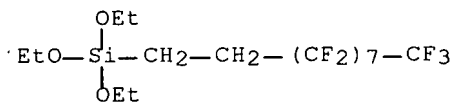
ED Entered STN: 25 May 2006

AB Condensation products of fluorosilanes of specified structure with (amino) alcs. are coatings for hydrophobization or oleophobization of surfaces. Adding 31.7 g trichloro[2-(perfluorohexyl)ethyl]silane over 1.5 h to 118.3 g triethylene glycol stirred at 150°/20-50 mbar and stirring for 1 h at

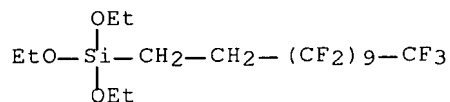
- 150°/.apprx.50 mbar gave clear, fluid C<sub>6</sub>F<sub>13</sub>CH<sub>2</sub>CH<sub>2</sub>Si[(OCH<sub>2</sub>CH<sub>2</sub>)<sub>3</sub>OH]<sub>3</sub>. Use of the products as coatings is exemplified.
- CC 42-10 (Coatings, Inks, and Related Products)
- ST fluorosilane condensate coating; hydrophobic coating fluorosilane condensate; oleophobic coating fluorosilane condensate; triethylene glycol condensate fluorosilane coating
- IT 51851-37-7DP, reaction products with triethylene glycol  
101947-16-4DP, reaction products with triethylene glycol  
146090-84-8DP, reaction products with triethylene glycol  
853403-04-0DP, reaction products with triethylene glycol  
885275-56-9DP, reaction products with triethylene glycol  
887651-67-4P 887651-68-5P 887651-69-6P 887651-70-9P  
887651-71-0P
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of condensation products of fluorosilanes for use in surface modification)
- IT 112-27-6, Triethylene glycol 78560-45-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of triethylene glycol with fluorosilanes)
- IT 51851-37-7DP, reaction products with triethylene glycol  
101947-16-4DP, reaction products with triethylene glycol  
146090-84-8DP, reaction products with triethylene glycol  
853403-04-0DP, reaction products with triethylene glycol  
885275-56-9DP, reaction products with triethylene glycol  
887651-69-6P
- RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of condensation products of fluorosilanes for use in surface modification)
- RN 51851-37-7 HCAPLUS
- CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



- RN 101947-16-4 HCAPLUS
- CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)- (CA INDEX NAME)

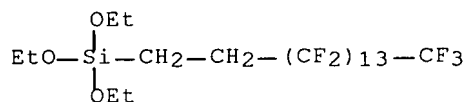


- RN 146090-84-8 HCAPLUS
- CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)- (CA INDEX NAME)



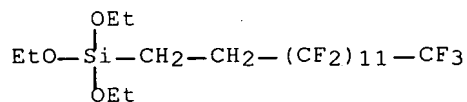
RN 853403-04-0 HCAPLUS

CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl)- (CA INDEX NAME)



RN 885275-56-9 HCAPLUS

CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl)- (CA INDEX NAME)



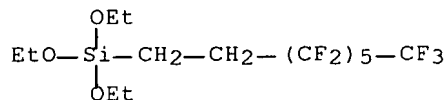
RN 887651-69-6 HCAPLUS

CN Silicic acid (H<sub>4</sub>SiO<sub>4</sub>), tetraethyl ester, polymer with α-hydro-ω-hydroxypoly(oxy-1,2-ethanediyl) and triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (9CI) (CA INDEX NAME)

CM 1

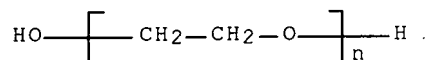
CRN 51851-37-7

CMF C14 H19 F13 O3 Si



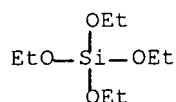
CM 2

CRN 25322-68-3  
 CMF (C2 H4 O)<sub>n</sub> H2 O  
 CCI PMS



CM 3

CRN 78-10-4  
 CMF C8 H20 O4 Si

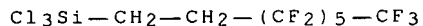


IT **78560-45-9**

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of triethylene glycol with fluorosilanes)

RN 78560-45-9 HCAPLUS

CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA  
 INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 28 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:57304 HCAPLUS Full-text

DOCUMENT NUMBER: 140:127844

TITLE: Preparation of fluorinated silica gel support material  
 for palladium catalyzed coupling reactions

INVENTOR(S): Bannwarth, Willi; Tzschucke, Carl Christoph; Glatz,  
 Heiko; Schwinn, Dominik

PATENT ASSIGNEE(S): Albert-Ludwigs-Universitaet Freiburg, Germany

SOURCE: Ger., 19 pp.  
 CODEN: GWXXAW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 10235225 B3 20040122 DE 2002-10235225 20020801 <--  
 WO 2004013068 A1 20040212 WO 2003-EP7592 20030714 <--  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2003250053 A1 20040223 AU 2003-250053 20030714 <--  
 PRIORITY APPLN. INFO.: DE 2002-10235225 A 20020801 <--  
 WO 2003-EP7592 W 20030714 <--

OTHER SOURCE(S): CASREACT 140:127844

ED Entered STN: 23 Jan 2004

AB The title support materials were synthesized and their use for palladium catalyzed coupling reactions is described. Thus, Rh(PPh<sub>3</sub>)<sub>3</sub>Cl-catalyzed silylation of HSi(CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>F<sub>13</sub>)<sub>3</sub> with triethoxyvinylsilane in THF gave 54% (EtO)<sub>3</sub>SiCH<sub>2</sub>CH<sub>2</sub>Si(CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>F<sub>13</sub>)<sub>3</sub> which on treatment with activated silica gel gave title support material. [(4-F17C<sub>8</sub>H<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>)<sub>3</sub>P]PdCl<sub>2</sub>-catalyzed Suzuki reaction of 4-BrC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub> with PhB(OH)<sub>2</sub> in the presence of above prepared fluorinated support material in DME gave quant. yield of 4-PhC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>. Also perfluoro-tagged benzyl alc. adsorbed on fluorous reversed-phase silica gel derivative via fluorous-fluorous interactions was prepared and used in the combinatorial synthesis of quinazolinones by a fluorous biphasic concept without perfluorinated solvents.

IC ICM C07F007-08

ICS C07B037-00; C07B061-00

CC 21-2 (General Organic Chemistry)

Section cross-reference(s): 35, 66

IT 648945-88-4DP, reaction products with silica gel

RL: CRG (Combinatorial reagent); RGT (Reagent); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)

(FRPSG support; preparation of perfluoro-tagged benzyl alc. adsorbed on fluorous reversed-phase silica gel derivative via fluorous-fluorous interactions for synthesis of quinazolinones by a fluorous biphasic concept without perfluorinated solvents)

IT 51851-37-7DP, reaction products with silica gel

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(fluorous reversed-phase silica gel (FRPSG) support; preparation of fluorinated silica gel support material for palladium catalyzed coupling reactions)

IT 648945-88-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluorinated silica gel support material for palladium catalyzed coupling reactions)

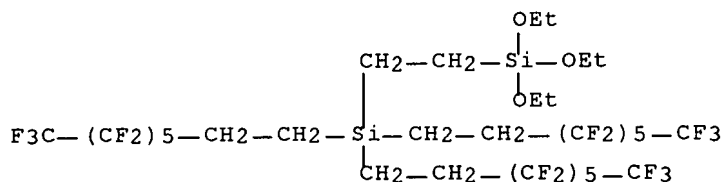
IT 648945-88-4DP, reaction products with silica gel

RL: CRG (Combinatorial reagent); RGT (Reagent); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)

(FRPSG support; preparation of perfluoro-tagged benzyl alc. adsorbed on fluorous reversed-phase silica gel derivative via fluorous-fluorous interactions for synthesis of quinazolinones by a fluorous biphasic concept without perfluorinated solvents)

RN 648945-88-4 HCAPLUS

CN Silane, triethoxy[2-[tris(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silyl]ethyl]- (CA INDEX NAME)



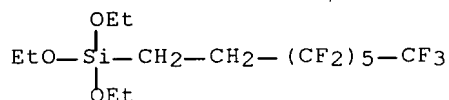
IT **51851-37-7DP**, reaction products with silica gel

RL: CAT (Catalyst use); **SPN (Synthetic preparation); PREP (Preparation);** USES (Uses)

(fluorous reversed-phase silica gel (FRPSG) support; preparation of fluorinated silica gel support material for palladium catalyzed coupling reactions)

RN 51851-37-7 HCAPLUS

CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



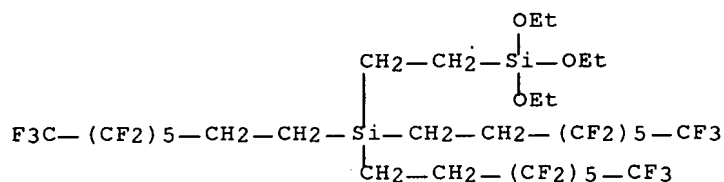
IT **648945-88-4P**

RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation);** RACT (Reactant or reagent)

(preparation of fluorinated silica gel support material for palladium catalyzed coupling reactions)

RN 648945-88-4 HCAPLUS

CN Silane, triethoxy[2-[tris(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silyl]ethyl]- (CA INDEX NAME)



L239 ANSWER 29 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:299131 HCAPLUS Full-text

DOCUMENT NUMBER: 138:322778

TITLE: Water-repellent treating compositions

INVENTOR(S): Sasaki, Shoji; Saito, Hiromitsu

PATENT ASSIGNEE(S): Toyo Riken K. K., Japan; San-Ai Oil Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003113371	A	20030418	JP 2001-309704	20011005 <--
PRIORITY APPLN. INFO.:			JP 2001-309704	20011005 <--

ED Entered STN: 18 Apr 2003

AB Title compns. comprise alcs., dimethylpolysiloxanes, alkylsilanes, and acids. A composition containing iso-PrOH 93.7, KF 96-500 3, KBM 22 2, and H2SO4 1.3 parts showed water-contact angle 101°, slip angle of water drop <20°, and good abrasive resistance.

IC ICM C09K003-18  
 ICS C08K005-05; C08K005-541; C08L083-04; C09D183-04; C03C017-30

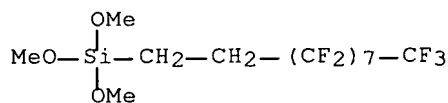
CC 42-10 (Coatings, Inks, and Related Products)

IT 1112-39-6DP, Dimethyldimethoxysilane, polymers with dimethylpolysiloxanes  
 2996-92-1DP, Phenyltrimethoxysilane, polymers with dimethylpolysiloxanes  
 5575-48-4DP, Decyltrimethoxysilane, polymers with dimethylpolysiloxanes  
 15164-57-5DP, Diethyldimethoxysilane, polymers with dimethylpolysiloxanes  
**83048-65-1DP**, KBM 7803, polymers with dimethylpolysiloxanes  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (dimethylpolysiloxane-, alkylsilane-, and acid-containing **alc.** compns. as water-repellent treating agents with abrasion resistance)

IT **83048-65-1DP**, KBM 7803, polymers with dimethylpolysiloxanes  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (dimethylpolysiloxane-, alkylsilane-, and acid-containing **alc.** compns. as water-repellent treating agents with abrasion resistance)

RN 83048-65-1 HCAPLUS

CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)trimethoxy- (CA INDEX NAME)



L239 ANSWER 30 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:607776 HCAPLUS Full-text

DOCUMENT NUMBER: 137:156193

TITLE: Waterborne soiling and weather-resistant high-gloss coating compositions containing alkoxy silane compounds

INVENTOR(S): Takahashi, Hideyuki; Sasao, Yasuyuki

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese



FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226784	A	20020814	JP 2001-24173	20010131 <--
PRIORITY APPLN. INFO.:			JP 2001-24173	20010131 <--

OTHER SOURCE(S): MARPAT 137:156193

ED Entered STN: 14 Aug 2002

AB The coating compns. contain (A) 100 parts synthetic resins, (B) 0.1-50 parts R1aSi(OR2)4-a (R1 = monovalent organic groups; a = 1-3; R2 = H, monovalent organic groups; provided that  $\geq 1$  of R1 bears F atom and R1 or/and R2 have hydrophilic groups) or its condensates, and (C) 0-50 parts R3bSi(OR4)4-b (R3 = F-free monovalent organic groups; R4 = H, monovalent organic groups; b = 0-3) or its condensates. Thus, mixing a chlorotrifluoroethylene-Et vinyl ether-cyclohexyl vinyl ether-4-hydroxybutyl vinyl ether-ethoxylated 4-hydroxybutyl vinyl ether graft copolymer dispersion (solids content 50%) 71 with CS-12 (film forming aid) 3.6, Rheovis CR (a thickener) 0.3, CR 97 (TiO<sub>2</sub>) 15.4, Nopco 44C (dispersant) 0.8, FS Antifoam 90 (antifoamer) 0.6 and water 10.3 parts gave a white base coat composition which (287 parts) was combined with 10 parts a reaction mixture of a polyethylene glycol-modified TSL 8233 (heptadecafluorodecyltrimethoxysilane) 20, Et Silicate 40 180, Bu<sub>2</sub>Sn dilaurate 0.2 and water 3.8 g gave a coating composition with good compatibility, coat film gloss and resistance to soiling and weather.

IC ICM C09D201-00  
ICS B05D007-24; C09D183-02; C09D183-04; C09D183-08; C09D183-10

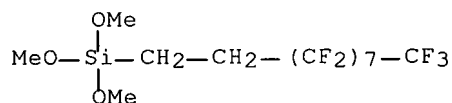
CC 42-10 (Coatings, Inks, and Related Products)

IT 25322-68-3DP, Polyethylene glycol, reaction products with silicate esters 29697-44-7P, Ethylene-propylene-tetrafluoroethylene copolymer **83048-65-1DP**, TSL 8233, reaction products with polyethylene glycol 98358-37-3DP, A 1230, reaction products with pentafluoropentanol 125770-20-9P 148043-73-6DP, 4,4,5,5,5-Pentafluoro-1-pentanol, reaction products with A 1230 or silicate esters 259872-25-8P, Chlorotrifluoroethylene-cyclohexyl vinyl ether-ethoxylated 4-hydroxybutyl vinyl ether-ethyl vinyl ether-4-hydroxybutyl vinyl ether graft copolymer 445432-88-2P, Chlorotrifluoroethylene;cyclohexyl vinyl ether;ethylene oxide;ethoxylated 4-hydroxybutyl vinyl ether;ethyl vinyl ether;4-hydroxybutyl vinyl ether graft copolymer 445432-89-3P  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(waterborne soiling and weather-resistant and high-gloss coating compns. containing alkoxy silane compds.)

IT **83048-65-1DP**, TSL 8233, reaction products with polyethylene glycol  
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(waterborne soiling and weather-resistant and high-gloss coating compns. containing alkoxy silane compds.)

RN 83048-65-1 HCAPLUS

CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy- (CA INDEX NAME)



L239 ANSWER 31 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:686143 HCAPLUS Full-text

DOCUMENT NUMBER: 136:19719

TITLE: Fluorous triphasic reactions: transportative deprotection of fluorous silyl ethers with concomitant purification

AUTHOR(S): Nakamura, Hiroyuki; Linclau, Bruno; Curran, Dennis P.

CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, 15260, USA

SOURCE: Journal of the American Chemical Society (2001), 123(41), 10119-10120

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:19719

ED Entered STN: 20 Sep 2001

AB Silyl ethers  $\text{ROSi}(\text{CHMe}_2)_2(\text{CH}_2)_2\text{Rf}$  [I, R = 2-(2-naphthyl)ethyl,  $\text{Ph}(\text{CH}_2)_2$ , cholestanyl, etc., Rf = C8F17, C6F13, C4F9, C10F21] were prepared and then deprotected using a triphasic system. This triphasic system uses a fluorous tag to allow transportation of the impure tagged substrate from the S-phase (substrate phase, where I is added) through the F-phase (fluorous phase containing the tagged substrate) to the P-phase (product phase) where it is detagged (desilylated) to provide the final pure product (the pure alc. ROH). The detagging reaction drives the non-equilibrium transport of the product to the P-phase in this intimate coupling of reaction and separation

CC 21-2 (General Organic Chemistry)

Section cross-reference(s): 80

IT 1485-07-0P, 2-(2-Naphthyl)ethanol 7228-47-9P, 1-(2-Naphthyl)ethan-1-ol  
340128-80-5P 356056-15-0P 374928-84-4P 374928-85-5P 374928-86-6P  
374928-87-7P **374928-88-8P** 374928-89-9P 374928-90-2P  
374928-91-3P 374928-94-6P 374928-95-7P 374929-00-7P 374929-05-2P

RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation)**; RACT (Reactant or reagent)

(desilylation and concomitant purification of fluorous silyl ethers using triphasic system to give alcs. and partition coefficient effect)

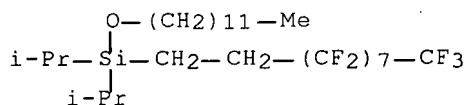
IT **374928-88-8P**

RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation)**; RACT (Reactant or reagent)

(desilylation and concomitant purification of fluorous silyl ethers using triphasic system to give alcs. and partition coefficient effect)

RN 374928-88-8 HCAPLUS

CN Silane, (dodecyloxy)(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)bis(1-methylethyl)- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L239 ANSWER 32 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:439526 HCAPLUS Full-text

DOCUMENT NUMBER: 131:88047

TITLE: Preparation of fluorine-containing alkoxysilanes by alkoxylation of fluorine-containing chlorosilanes with alkoxysilane in the presence of alcohol promoter

INVENTOR(S): Tanaka, Akira; Tsuchiya, Katsuyoshi

PATENT ASSIGNEE(S): Chisso Corp.; Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11189599	A	19990713	JP 1997-367038	19971225 <--
PRIORITY APPLN. INFO.:			JP 1997-367038	19971225 <--
OTHER SOURCE(S):	CASREACT 131:88047;	MARPAT 131:88047		

ED Entered STN: 19 Jul 1999

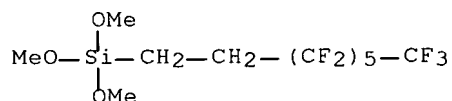
AB [2-(Perfluoroalkyl)ethyl]alkoxysilanes represented by formula  $\text{F}(\text{CF}_2)_m\text{CH}_2\text{CH}_2\text{Si}(\text{OR}_3)_n(\text{R}_1)_{3-n}$  ( $\text{R}_1, \text{R}_3 = \text{Me, Et, Pr, Bu}$ ;  $m = 1-15$ ;  $n = 1-3$ ) are prepared by alkoxylation of [2-(perfluoroalkyl)ethyl]chlorosilanes represented by formula  $\text{F}(\text{CF}_2)_m\text{CH}_2\text{CH}_2\text{SiCl}_n(\text{R}_1)_{3-n}$  ( $\text{R}_1, \text{R}_3, m, n = \text{same as above}$ ) with alkoxysilane represented by formula  $(\text{R}_5)_q\text{Si}(\text{OR}_6)_4-q$  ( $\text{R}_5, \text{R}_6 = \text{Me, Et, Pr, Bu}$ ;  $q = 0-3$ ) in the presence of an aliphatic alc. ( alkanol ) promoter represented by formula  $\text{R}_4\text{OH}$  ( $\text{R}_4 = \text{Me, Et, Pr, Bu}$ ). This process gives 2- [(perfluoroalkyl)ethyl]alkoxysilanes in high yields under very mild conditions without polymerization 2- [(Perfluoroalkyl)ethyl]alkoxysilanes are useful as raw materials for silicone coatings possessing water-repellent and antifouling property and durability. Thus, 44.8 g  $\text{F}(\text{CF}_2)_6\text{CH}_2\text{CH}_2\text{SiCl}_3$  and 47.4 g  $\text{Me}_2\text{Si}(\text{OMe})_2$  were placed in a 300 mL flask fitted with an oil bath, a temperature controller, a magnetic stirrer, a column packed with Raschig ring, a reflux head, and a dropping funnel and heated to reflux  $\text{Me}_2\text{Si}(\text{OMe})_2$ , to which was added dropwise 6.8 g MeOH over 95 min from a dropping funnel attached to the top of the column. After completing the MeOH addition, the reaction mixture was matured for 1 h, followed by distilling off low boiling components such as MeOH, dimethylmethoxychlorosilane, and dimethyldimethoxysilane to give  $\text{F}(\text{CF}_2)_6\text{CH}_2\text{CH}_2\text{Si}(\text{OMe})_3$  containing 1,000 ppm Cl and 1.37% side products of high b.p. To this reaction product liquid was added 1 mL 28% NaOMe in MeOH at room temperature to remove Cl and the resulting mixture was matured for 1 h and distilled under reduced pressure to give 86%  $\text{F}(\text{CF}_2)_6\text{CH}_2\text{CH}_2\text{Si}(\text{OMe})_3$ .

IC ICM C07F007-18

ICS C07B061-00

CC 29-6 (Organometallic and Organometalloidal Compounds)  
Section cross-reference(s): 42

- ST fluorine contg alkoxysilane prepn silicone coating material;  
perfluoroalkylethylalkoxysilane prepn silicone coating material;  
perfluoroalkylethylchlorosilane alkoxylation alkoxysilane; chlorosilane  
contg fluorine alkoxylation alkoxysilane; alkanol alkoxylation  
promoter
- IT Alcohols, uses  
RL: CAT (Catalyst use); USES (Uses)  
(aliphatic; preparation of fluorine-containing alkoxysilanes by  
alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT Silanes  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkoxy; preparation of fluorine-containing alkoxysilanes by alkoxylation  
of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT Silanes  
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluoroalkyl, [2-(perfluoroalkyl)ethyl]alkoxysilanes; preparation of  
fluorine-containing alkoxysilanes by alkoxylation of fluorine-containing  
chlorosilanes with alkoxysilane in presence of alc. promoter)
- IT Alkoxylation  
Alkoxylation catalysts  
(preparation of fluorine-containing alkoxysilanes by alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT 64-17-5, Ethanol, uses 71-23-8, Propanol, uses 71-36-3, 1-Butanol,  
uses  
RL: CAT (Catalyst use); USES (Uses)  
(preparation of fluorine-containing alkoxysilanes by alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT 85857-16-5P, [2-(Perfluorohexyl)ethyl]trimethoxysilane  
RL: IMF (Industrial manufacture); SPN (Synthetic  
preparation); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(preparation of fluorine-containing alkoxysilanes by alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT 67-56-1, Methanol, reactions 1112-39-6, Dimethyldimethoxysilane  
1185-55-3, Methyltrimethoxysilane 78560-45-9,  
[2-(Perfluorohexyl)ethyl]trichlorosilane  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of fluorine-containing alkoxysilanes by alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- IT 85857-16-5P, [2-(Perfluorohexyl)ethyl]trimethoxysilane  
RL: IMF (Industrial manufacture); SPN (Synthetic  
preparation); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(preparation of fluorine-containing alkoxysilanes by alkoxylation of  
fluorine-containing chlorosilanes with alkoxysilane in presence of  
alc. promoter)
- RN 85857-16-5 HCAPLUS
- CN Silane, trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA  
INDEX NAME)



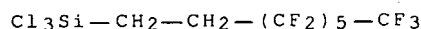
IT **78560-45-9**, [2-(Perfluorohexyl)ethyl]trichlorosilane

RL: **RCT (Reactant); RACT (Reactant or reagent)**

(preparation of fluorine-containing alkoxysilanes by alkoxylation of fluorine-containing chlorosilanes with alkoxysilane in presence of **alc.** promoter)

RN 78560-45-9 HCAPLUS

CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



L239 ANSWER 33 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:314737 HCAPLUS Full-text

DOCUMENT NUMBER: 129:41529

TITLE: Boron compounds, olefin polymerization catalyst components containing them, and preparation of polyolefins therewith

INVENTOR(S): Ono, Michio; Higuma, Shinji; Inasawa, Shintaro

PATENT ASSIGNEE(S): Nippon Polyolefin K. K., Japan; Japan Polyolefine Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10130316	A	19980519	JP 1996-291895	19961101 <--
JP 3683364	B2	20050817		
PRIORITY APPLN. INFO.:			JP 1996-291895	19961101 <--

OTHER SOURCE(S): MARPAT 129:41529

ED Entered STN: 28 May 1998

AB The catalyst components, useful for promoters of metallocene catalysts, are Lewis acid-supported B-R1R2R3YiSiR4R5R6X+ (R1-3 = C1-20 alkyl, arylalkyl, halo-containing alkyl, halo-containing arylalkyl, aryl, alkylaryl, halo-containing aryl, halo-containing alkylaryl; Y = C1-10 alkylene, arylalkylene, halo-containing alkylene, halo-containing arylalkylene, arylene, alkylarylene, halo-containing arylene, halo-containing alkylarylene; R4-6 = C1-10 alkoxy, C1-20 alkyl, arylalkyl, aryl, alkylaryl, at least one of them is C1-10 alkoxy; X+ = monovalent cation; i = 0, 1). Thus, N,N-dimethylanilinium tris(pentafluorophenyl)-1-dimethoxysilylmethyl-2,3,5,6-tetrafluorophenylborate in CH2Cl2 was heated with MgCl2 in THF under reflux to obtain solid component, then ethylene was polymerized in the presence of the solid component, Al(CH2CMe2)3, and zirconocene dichloride at 10 kg/cm2 and 70°

for 30 min to give HDPE having d. 0.954 with no scale deposition on the reactor wall.

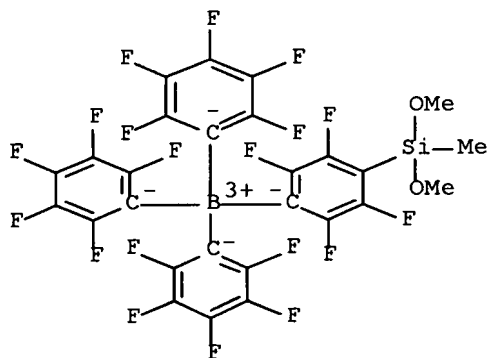
IC ICM C08F004-58  
ICS C08F004-52; C08F010-00  
CC 35-4 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 67  
IT 208247-92-1P  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP  
(Preparation); USES (Uses)  
(boron compds. for metallocene catalyst promoters in polyolefin  
manufacture with reduced scale formation)  
IT 208247-88-5P 208247-90-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(boron compds. for metallocene catalyst promoters in polyolefin  
manufacture with reduced scale formation)  
IT 208247-92-1P  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP  
(Preparation); USES (Uses)  
(boron compds. for metallocene catalyst promoters in polyolefin  
manufacture with reduced scale formation)  
RN 208247-92-1 HCAPLUS  
CN Borate(1-), [4-(dimethoxymethylsilyl)-2,3,5,6-  
tetrafluorophenyl]tris(pentafluorophenyl)-, (T-4)-, hydrogen, compd. with  
N,N-dimethylbenzenamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 208247-91-0

CMF C27 H9 B F19 O2 Si . H

CCI CCS

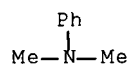


● H<sup>+</sup>

CM 2

CRN 121-69-7

CMF C8 H11 N

IT **208247-90-9P**RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP****(Preparation)**; RACT (Reactant or reagent)(boron compds. for metallocene catalyst promoters in **polyolefin** manufacture with reduced scale formation)

RN 208247-90-9 HCAPLUS

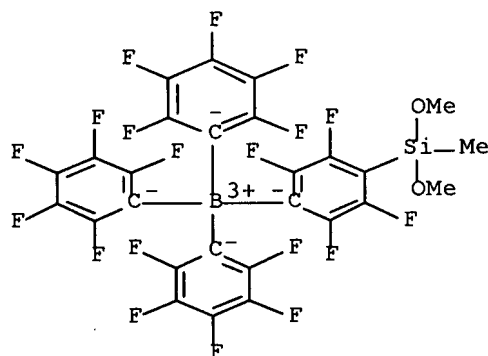
CN Lithium(1+), tris(tetrahydrofuran)-, (T-4)-[4-(dimethoxymethylsilyl)-2,3,5,6-tetrafluorophenyl]tris(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 208247-89-6

CMF C27 H9 B F19 O2 Si

CCI CCS

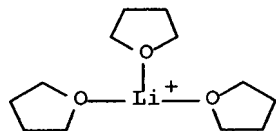


CM 2

CRN 61915-36-4

CMF C12 H24 Li O3

CCI CCS



DOCUMENT NUMBER: 128:308609  
 TITLE: Preparation of (fluoroalkoxy)(alkoxy)silanes as materials for SiOF interlayer insulator film for semiconductor devices by CVD  
 INVENTOR(S): Hijido, Takeyuki; Kadokura, Hidekimi; Matsumoto, Masamichi; Matsumoto, Hiroshi; Yokoyama, Hidechika  
 PATENT ASSIGNEE(S): Kojundo Kagaku Kenkyusho K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10101682	A	19980421	JP 1996-292198	19960927 <--
PRIORITY APPLN. INFO.:			JP 1996-292198	19960927 <--

OTHER SOURCE(S): MARPAT 128:308609

ED Entered STN: 27 Apr 1998

AB (R1O)nSi(OR2)4-n (R1 = C2-3 fluoroalkyl; R2 = Me, Et; n = 1-3) are prepared by reaction of R1OH (R1 = same as above) with Si(OR2)4 (R2 = same as above). (CF3)2CHOH (40 g) was treated with 50 g Si(OEt)4 at 180° under 5.5 kg/cm2 for 12 h adding 40 g (CF3)2CHOH 3 times every 3 h and distilled to give 57 g fraction containing 81 weight% (CF3)2CHOSi(OEt)3 and 5 weight% [(CF3)2CHO]2Si(OEt)2.

IC ICM C07F007-04

CC 29-6 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 75, 76

IT **206060-58-4P**

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of (fluoroalkoxy)(alkoxy)silanes by reaction of fluoroalkyl alcs. with alkoxysilanes)

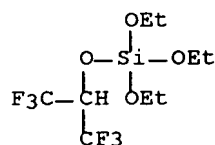
IT **206060-58-4P**

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of (fluoroalkoxy)(alkoxy)silanes by reaction of fluoroalkyl alcs. with alkoxysilanes)

RN 206060-58-4 HCAPLUS

CN Silicic acid (H4SiO4), triethyl 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester (9CI) (CA INDEX NAME)



L239 ANSWER 35 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:732311 HCAPLUS Full-text

DOCUMENT NUMBER: 128:53067

TITLE: Cosmetics containing fluorinated ladder polysiloxanes

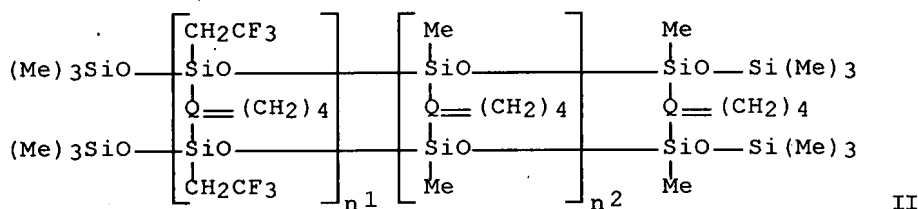
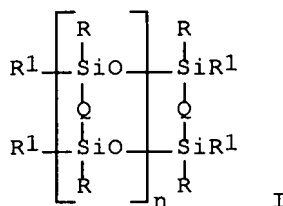
INVENTOR(S): Iyanagi, Koichi; Takahashi, Eiji

PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan



SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09291010	A	19971111	JP 1996-102770	19960424 <--
PRIORITY APPLN. INFO.: ED Entered STN: 20 Nov 1997 GI			JP 1996-102770	19960424 <--



AB The cosmetics contain fluorinated ladder siloxanes I (R = hydrocarbyl which may be partially substituted with F; R1 = OSiR3, R; ≥1 of R = partially-fluorinated hydrocarbyl; Q = divalent organic group; n = ≥10). I show good miscibility with oils, and provide a uniform thin film with good water- and oil-repellency on skin, hair, and nail. A ladder polysiloxane II was prepared by hydrolytic polymerization of MeSiCl2(CH2)4SiMeCl2 (preparation given) and CF3CH2SiCl2(CH2)4SiCl2CH2CF3 (preparation given) using Me3SiCl as a terminating agent. A cream was formulated from triglycerol diisostearate, glycerin, propylene glycol, methylparaben, butylparaben, C12 isoparaffin, and II.

IC ICM A61K007-00

ICS A61K007-02; A61K007-06; A61K007-08; C08G077-24

CC 62-4 (Essential Oils and Cosmetics)

IT 75-77-4DP, Trimethylchlorosilane, fluorine-containing ladder polysiloxanes terminated by 107-46-0DP, Hexamethyldisiloxane, fluorine-containing ladder polysiloxanes terminated by 994-30-9DP, Triethylchlorosilane, fluorine-containing ladder polysiloxanes terminated by 994-49-0DP, Hexaethyldisiloxane, fluorine-containing ladder polysiloxanes terminated by 1825-61-2DP, Trimethylmethoxysilane, fluorine-containing ladder polysiloxanes terminated by 17841-51-9DP, Hexapropyldisiloxane, fluorine-containing ladder polysiloxanes terminated by **178317-33-4DP**, fluorine-containing ladder polysiloxanes terminated by 186424-86-2DP, fluorine-containing ladder polysiloxanes terminated by 190391-00-5DP, fluorine-containing ladder polysiloxanes terminated by 199851-27-9DP, trimethylsilyl-terminated

199851-30-4DP, tripropylsilyl-terminated 199851-32-6DP, fluorodecyldiethylsilyl-terminated 199851-35-9DP, reaction products with bis(fluoroethylchloromethylsilylpropyl) ether 199851-38-2DP, trimethylsilyl-terminated 199851-39-3DP, reaction products with bis(fluoroethylchloromethylsilylpropyl) ether 199851-41-7DP, perfluoropropylsilyl-terminated 199873-77-3DP, trimethylsilyl-terminated 199873-80-8DP, reaction products with bis(dimethylethoxysilylethyl)benzene 199873-81-9DP, triethylsilyl-terminated 200074-94-8P 200074-95-9P

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation);

USES (Uses)

(preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)

IT 27360-22-1P 38958-24-6P 121067-30-9P 188037-42-5P 190390-91-1P  
190390-92-2P 190390-93-3P 190390-95-5P 190390-97-7P  
 190390-98-8P 190544-07-1P 190544-08-2P 190544-10-6P  
 190544-12-8P 190544-14-0P 199873-73-9P

199873-74-0DP, fluorine-containing ladder polysiloxanes terminated by

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)

IT 75-54-7, Methylchlorosilane 105-06-6 106-37-6, 1,4-Dibromobenzene  
 106-99-0, 1,3-Butadiene, reactions 111-50-2, Adipic acid dichloride  
 353-83-3, 2,2,2-Trifluoroethyl iodide 355-43-1, Perfluorohexyl iodide  
 422-85-5, Perfluoropropyl bromide 423-39-2, Perfluorobutyl iodide  
 557-40-4, Diallyl ether 925-90-6, Ethylmagnesium bromide 998-30-1,  
 Triethoxysilane 1026-92-2, Diallyl terephthalate 1631-84-1,  
 Phenylchlorosilane 1873-92-3, Allylmethylchlorosilane 2031-62-1,  
 Methyl-diethoxysilane 2487-90-3, Trimethoxysilane 2553-19-7,  
 Diphenyldiethoxysilane 2768-02-7 2996-92-1 3179-76-8,  
 3-Aminopropylmethyl-diethoxysilane 4074-90-2, Divinyl adipate  
 10025-78-2, Trichlorosilane 10026-04-7, Tetrachlorosilane 13822-56-5,  
 3-Aminopropyltrimethoxysilane 14857-34-2, Dimethylethoxysilane  
 18165-68-9, Diethoxysilane 18230-56-3, Mercaptotrimethoxysilane  
21652-58-4, 1H,1H,2H-Perfluorodec-1-ene 58068-97-6 83048-65-1  
 85877-79-8 178317-23-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)

IT 178317-33-4DP, fluorine-containing ladder polysiloxanes terminated by

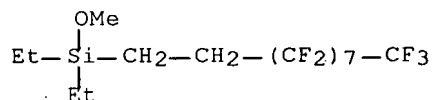
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation);

USES (Uses)

(preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)

RN 178317-33-4 HCAPLUS

CN Silane, diethyl(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)methoxy- (9CI) (CA INDEX NAME)



IT 190390-92-2P 190390-97-7P 190544-08-2P

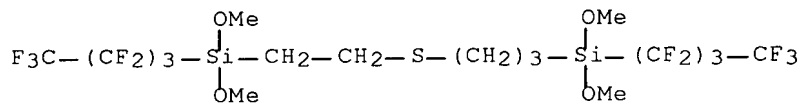
190544-14-0P 199873-73-9P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)

(preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)

RN 190390-92-2 HCAPLUS

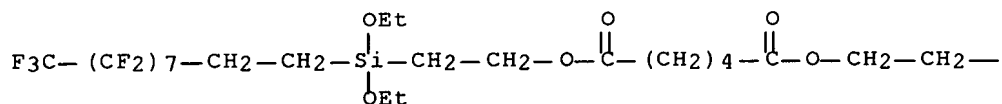
CN 2,11-Dioxa-6-thia-3,10-disiladodecane, 3,10-dimethoxy-3,10-bis(nonafluorobutyl)- (9CI) (CA INDEX NAME)



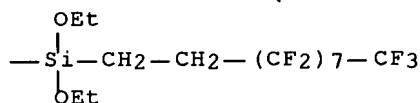
RN 190390-97-7 HCAPLUS

CN Hexanedioic acid, bis[2-[diethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)silyl]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

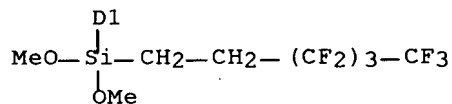
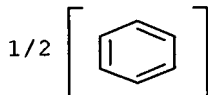


PAGE 1-B

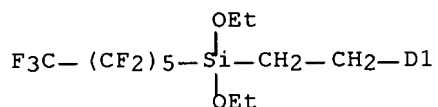
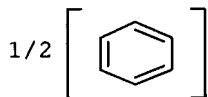


RN 190544-08-2 HCAPLUS

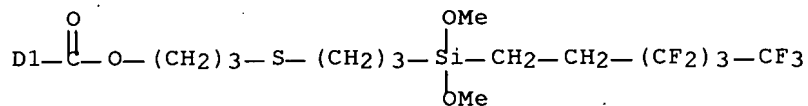
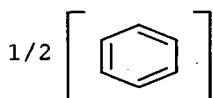
CN Silane, phenylenebis[dimethoxy(3,3,4,4,5,5,6,6,6-nonafluorohexyl)- (9CI) (CA INDEX NAME)]



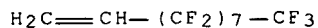
RN 190544-14-0 HCAPLUS  
 CN Silane, (phenylenedi-2,1-ethanediyl)bis[diethoxy(tridecafluorohexyl)-  
 (9CI) (CA INDEX NAME)



RN 199873-73-9 HCAPLUS  
 CN Benzenedicarboxylic acid, bis[3-[[3-[dimethoxy(3,3,4,4,5,5,6,6,6-nonafluorohexyl)silyl]propyl]thio]propyl] ester (9CI) (CA INDEX NAME)



IT 21652-58-4, 1H,1H,2H-Perfluorodec-1-ene  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of fluorinated ladder polysiloxanes with good water- and oil-repellency for cosmetics)  
 RN 21652-58-4 HCAPLUS  
 CN 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro- (CA INDEX NAME)



L239 ANSWER 36 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:473086 HCAPLUS Full-text  
 DOCUMENT NUMBER: 127:161970  
 TITLE: Preparation of (fluoroalkyl)alkoxysilanes from (fluoroalkyl)chlorosilanes and alcohols  
 INVENTOR(S): Murakami, Nobuhito

PATENT ASSIGNEE(S): Toshiba Silicone Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09169779	A	19970630	JP 1995-330349	19951219 <--
JP 3210850	B2	20010925		

PRIORITY APPLN. INFO.: JP 1995-330349 19951219 <--  
 OTHER SOURCE(S): CASREACT 127:161970; MARPAT 127:161970  
 ED Entered STN: 26 Jul 1997  
 AB (Fluoroalkyl)alkoxysilanes, useful for as materials for antisoiling and waterproofing coatings, are prepared by treatment of (fluoroalkyl)chlorosilanes with monovalent saturated alcs., followed by phase separation to remove generated HCl. MeOH (15.3 weight parts) was dropwise added to 100.0 weight parts F3C(CF2)7(CH2)2SiCl3 at 25° over 15 min, the reaction mixture treated with 51.6 weight parts MeOH, the upper layer removed, and the lower layer was treated with powdered CaCO3 at 40° to give 77.5% F3C(CF2)7(CH2)2Si(OMe)3 (99.2% purity).  
 IC ICM C07F007-18  
 CC 29-6 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 35, 42  
 IT Silanes  
 RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (alkoxy; preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Coating materials  
 (antisoiling; preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Silanes  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (chloro; preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Polysiloxanes, preparation  
 Polysiloxanes, preparation  
 RL: PNU (Preparation, unclassified); PREP (Preparation)  
 (fluorine-containing, coatings; preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Fluoropolymers, preparation  
 Fluoropolymers, preparation  
 RL: PNU (Preparation, unclassified); PREP (Preparation)  
 (polysiloxane-, coatings; preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Alkoxylation  
 Ethoxylation  
 Methoxylation  
 (preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 IT Alcohols, reactions  
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or

reagent); USES (Uses)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT Coating materials

(water-resistant; preparation of (fluoroalkyl)alkoxysilanes as materials

for

coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT 7647-01-0P, Hydrochloric acid, preparation

RL: BYP (Byproduct); REM (Removal or disposal); PREP (Preparation); PROC (Process)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT 64-17-5, Ethanol, reactions 67-56-1, Methanol, reactions

RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT 429-60-7P, 3,3,3-Trifluoropropyltrimethoxysilane

83038-84-0P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecylmethyldimethoxysilane 83048-65-1P,

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyltrimethoxysilane

85857-16-5P, 3,3,4,4,5,5,6,6,7,7,8,8,8-

Tridecafluorooctyltrimethoxysilane 85857-17-6P,

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctylmethyldimethoxysilane

101947-16-4P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecyltriethoxysilane 136790-31-3P,

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctylmethyldiethoxysilane

193674-11-2P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecyltrimethoxysilane

RL: PUR (Purification or recovery); SPN (Synthetic

preparation); PREP (Preparation)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT 592-09-6, 3,3,3-Trifluoropropyltrichlorosilane 3102-79-2,

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecylmethyldichlorosilane 73609-36-6, 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctylmethyldichlorosilane

74612-30-9, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecyltrimethoxysilane 78560-44-8,

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyltrichlorosilane

78560-45-9, 3,3,4,4,5,5,6,6,7,7,8,8,8-

Tridecafluorooctyltrichlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

IT 429-60-7P, 3,3,3-Trifluoropropyltrimethoxysilane

83038-84-0P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecylmethyldimethoxysilane 83048-65-1P,

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyltrimethoxysilane

85857-16-5P, 3,3,4,4,5,5,6,6,7,7,8,8,8-

Tridecafluorooctyltrimethoxysilane 85857-17-6P,

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctylmethyldimethoxysilane

101947-16-4P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

Heptadecafluorodecyltriethoxysilane 136790-31-3P,

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctylmethyldiethoxysilane

193674-11-2P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-

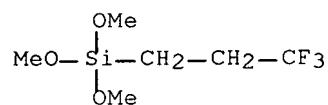
Heptadecafluorodecyltrimethoxysilane

RL: PUR (Purification or recovery); SPN (Synthetic

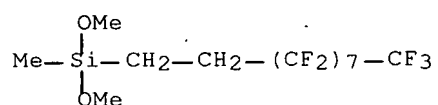
preparation); PREP (Preparation)

(preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)

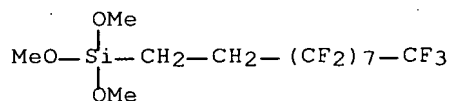
RN 429-60-7 HCAPLUS  
 CN Silane, trimethoxy(3,3,3-trifluoropropyl)- (CA INDEX NAME)



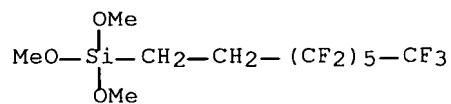
RN 83038-84-0 HCAPLUS  
 CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)dimethoxymethyl- (CA INDEX NAME)



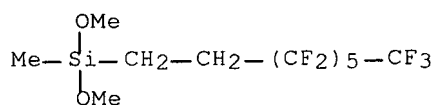
RN 83048-65-1 HCAPLUS  
 CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy- (CA INDEX NAME)



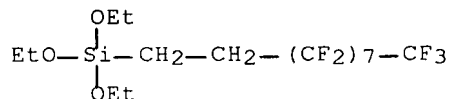
RN 85857-16-5 HCAPLUS  
 CN Silane, trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



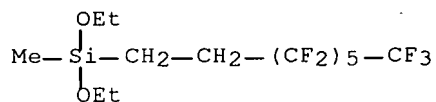
RN 85857-17-6 HCAPLUS  
 CN Silane, dimethoxymethyl(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (9CI) (CA INDEX NAME)



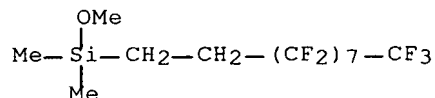
RN 101947-16-4 HCAPLUS  
 CN Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)- (CA INDEX NAME)



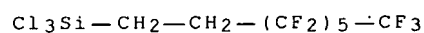
RN 136790-31-3 HCAPLUS  
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RN 193674-11-2 HCAPLUS  
 CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)methoxydimethyl- (9CI) (CA INDEX NAME)



IT **78560-45-9**, 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyltrichlorosilane  
 RL: **RCT (Reactant); RACT (Reactant or reagent)**  
 (preparation of (fluoroalkyl)alkoxysilanes as materials for coatings from (fluoroalkyl)chlorosilanes and alcs.)  
 RN 78560-45-9 HCAPLUS  
 CN Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)





L239 ANSWER 37 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:592338 HCAPLUS Full-text  
 DOCUMENT NUMBER: 127:241046  
 TITLE: Process for forming liquid crystal vertical alignment film  
 INVENTOR(S): Nogami, Tatsuya; Nakada, Takakazu; Sakai, Rie; Hosoya, Takeshi  
 PATENT ASSIGNEE(S): Nissan Chemical Industries Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 790522	A1	19970820	EP 1997-101354	19970129 <--
EP 790522	B1	20040324		
R: DE, FR, GB, NL				
TW 397927	B	20000711	TW 1997-86100723	19970123 <--
JP 09281502	A	19971031	JP 1997-12158	19970127 <--
JP 3757514	B2	20060322		
US 5766673	A	19980616	US 1997-791058	19970128 <--
			JP 1996-28962	A 19960216 <--

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 127:241046

ED Entered STN: 17 Sep 1997

AB A process for forming a liquid crystal vertical alignment film on an electrode substrate surface comprises preparing a reaction mixture comprising a silicon compound (A) of the formula  $\text{Si}(\text{OR})_4$ , wherein R is a C1-5 alkyl group, a silicon compound (B) of the formula  $\text{R}_1\text{Si}(\text{OR})_3$ , wherein  $\text{R}_1$  is an unsubstituted or fluorinated C3-20 alkyl group and R is as defined above, an alc. (C) of the formula  $\text{R}_2\text{CH}_2\text{OH}$ , wherein  $\text{R}_2$  is a hydrogen atom or an unsubstituted or substituted C1-12 alkyl group, and oxalic acid (D), in a ratio of from 0.05 to 0.43 mol of the silicon compound (B) per mol of the silicon compound (A), in a ratio of from 0.5 to 100 mol of the alc. (C) per mol of the total alkoxy groups contained in the silicon compds. (A) and (B), and in a ratio of from 0.2 to 2 mol of the oxalic acid (D) per mol of the total alkoxy groups contained in the silicon compds. (A) and (B), heating the reaction mixture at a temperature of from 50 to 180° until the total amount of the silicon compds. (A) and (B) remaining in the reaction mixture becomes at most 5 mol% while maintaining a  $\text{SiO}_2$  concentration of from 0.5 to 10 wt% as calculated from silicon atoms in the reaction mixture and maintaining absence of water to form a polysiloxane solution, coating a coating fluid comprising the polysiloxane solution on an electrode substrate surface to form a coating, and heat-curing the coating at a temperature of from 80 to 400° to form a liquid crystal vertical alignment film, as adhered on the electrode substrate surface.

IC ICM G02F001-1337

ICS C08G077-06; C09D004-00

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 64-17-5DP, Ethanol, reaction products with oxalic acid and silane derivs., preparation 67-56-1DP, Methanol, reaction products with oxalic acid and silane derivs., preparation 71-23-8DP, Propanol, reaction products with oxalic acid and silane derivs. 71-36-3DP, 1-Butanol, reaction products with oxalic acid and silane derivs., preparation 78-10-4DP, reaction

products with alc., oxalic acid, and silane derivative 109-86-4DP, Ethylene glycol monomethyl ether, reaction products with oxalic acid and silane derivs. 110-80-5DP, Ethylene glycol monoethyl ether, reaction products with oxalic acid and silane derivs. 111-77-3DP, reaction products with oxalic acid and silane derivs. 111-90-0DP, Diethylene glycol monoethyl ether, reaction products with oxalic acid and silane derivs. 144-62-7DP, Ethanedioic acid, reaction products with alc. and silane derivs., preparation 429-40-3DP, reaction products with alc., oxalic acid, and silane derivative 429-60-7DP, Trifluoropropyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 681-84-5DP, reaction products with alc., oxalic acid, and silane derivative 681-97-0DP, Trifluoropropyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 682-01-9DP, Tetrapropoxysilane, reaction products with alc., oxalic acid, and silane derivative 1320-67-8DP, Propylene glycol monomethyl ether, reaction products with oxalic acid and silane derivs. 2943-75-1DP, Octyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 3069-19-0DP, Hexyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 3069-21-4DP, Dodecyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 3069-27-0DP, reaction products with alc., oxalic acid, and silane derivative 3069-40-7DP, Octyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 3069-42-9DP, Octadecyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 4766-57-8DP, Tetrautoxysilane, reaction products with alc., oxalic acid, and silane derivative 7399-00-0DP, Octadecyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 16415-12-6DP, Hexadecyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 16415-13-7DP, Hexadecyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 18166-37-5DP, Hexyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 18536-91-9DP, Dodecyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 41966-95-4DP, Heptyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 52125-53-8DP, Propylene glycol monoethyl ether, reaction products with oxalic acid and silane derivs. 83048-65-1DP, Heptadecafluorodecyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 85857-16-5P, Tridecafluorooctyltrimethoxysilane 109134-39-6DP, reaction products with alc., oxalic acid, and silane derivative 125607-98-9DP, Tridecafluorooctyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 195191-98-1DP, reaction products with alc., oxalic acid, and silane derivative 195191-99-2DP, reaction products with alc., oxalic acid, and silane derivative  
 RL: DEV (Device component use); PNU (Preparation, unclassified);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)

(vertical alignment films for liquid-crystal display devices)  
 IT 429-40-3DP, reaction products with alc., oxalic acid, and silane derivative 429-60-7DP, Trifluoropropyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 681-97-0DP, Trifluoropropyltriethoxysilane, reaction products with alc., oxalic acid, and silane derivative 83048-65-1DP, Heptadecafluorodecyltrimethoxysilane, reaction products with alc., oxalic acid, and silane derivative 85857-16-5P, Tridecafluorooctyltrimethoxysilane 109134-39-6DP, reaction products with alc., oxalic acid, and silane derivative 195191-98-1DP, reaction products with alc., oxalic acid, and silane derivative 195191-99-2DP, reaction products with

alc., oxalic acid, and silane derivative

RL: DEV (Device component use); PNU (Preparation, unclassified);

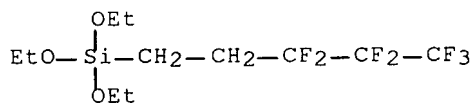
TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(vertical alignment films for liquid-crystal display devices)

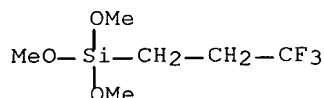
RN 429-40-3 HCAPLUS

CN Silane, triethoxy(3,3,4,4,5,5,5-heptafluoropentyl)- (8CI, 9CI) (CA INDEX NAME)



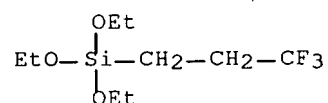
RN 429-60-7 HCAPLUS

CN Silane, trimethoxy(3,3,3-trifluoropropyl)- (CA INDEX NAME)



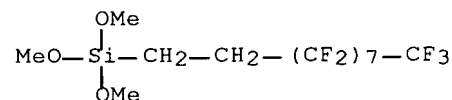
RN 681-97-0 HCAPLUS

CN Silane, triethoxy(3,3,3-trifluoropropyl)- (CA INDEX NAME)



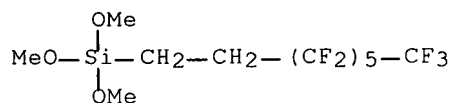
RN 83048-65-1 HCAPLUS

CN Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)trimethoxy- (CA INDEX NAME)



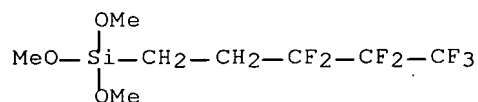
RN 85857-16-5 HCAPLUS

CN Silane, trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)- (CA INDEX NAME)



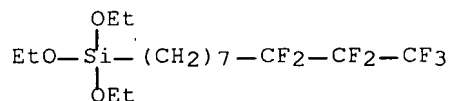
RN 109134-39-6 HCAPLUS

CN Silane, (3,3,4,4,5,5,5-heptafluoropentyl)trimethoxy- (9CI) (CA INDEX NAME)



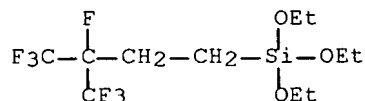
RN 195191-98-1 HCAPLUS

CN Silane, triethoxy(8,8,9,9,10,10,10-heptafluorodecyl)- (9CI) (CA INDEX NAME)



RN 195191-99-2 HCAPLUS

CN Silane, triethoxy[3,4,4,4-tetrafluoro-3-(trifluoromethyl)butyl]- (9CI) (CA INDEX NAME)



L239 ANSWER 38 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:638079 HCAPLUS Full-text

DOCUMENT NUMBER: 123:33681

TITLE: New organosilicon monomers and polymers based on  $\alpha,\alpha,\omega$ -trihydroperfluoroalkanols

AUTHOR(S): Voronkov, M. G.; Chernov, N. F.; Fedorova, E. O.

CORPORATE SOURCE: Irkutsk. Inst. Org. Khim., Russia

SOURCE: Zhurnal Organicheskoi Khimii (**1994**), 30(8), 1263-5

CODEN: ZORKAE; ISSN: 0514-7492

PUBLISHER: Nauka  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

ED Entered STN: 24 Jun 1995

AB Fluorine-containing trialkyl- and trialkoxysilane monomers  $X(\text{CF}_2\text{CF}_2)_n\text{CH}_2\text{O}(\text{CH}_2)_m\text{SiRk}(\text{OR}')_{3-k}$  (I;  $X = \text{H}, \text{F}$ ;  $n, m = 1 - 3$ ;  $k = 0 - 3$ ;  $R = \text{Me}, \text{Et}, \text{OCH}_2(\text{CF}_2\text{CF}_2)_3\text{H}$ ;  $R' = \text{Me}, \text{Et}$ ) were prepared by reacting  $X(\text{CF}_2\text{CF}_2)_n\text{CH}_2\text{OH}$  with  $\text{K}$  or  $\text{Na}$ , followed by crown ether-catalyzed reaction with  $\text{Cl}(\text{CH}_2)_m\text{SiRk}(\text{OR}')_{3-k}$  for 1-2 h at  $36-40^\circ$ . In addition, I ( $k = 0$ ) were reacted with triethanolamine to give corresponding silatranes. I were used to treat glass fibers to improve their properties. Thus, glass fiber was treated with I ( $X = \text{H}, n = 3, m = 1, k = 0, R' = \text{Me}$ ) and ( $\gamma$ -aminopropyl)triethoxysilane for 30 min at  $150^\circ$  to double the tensile strength of the fibers and to increase their flex life by a factor of 37.

CC 35-2 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 57

IT 93574-95-9P

RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of fluorine-containing trialkyl- and trialkoxysilane and trialkoxysilatane monomers for glass fiber treatment from trihydroperfluoroalkanols)

IT 93574-76-6P 93574-77-7P 93574-93-7P 93574-96-0P  
93574-97-1P 164584-11-6P 164584-12-7P 164584-13-8P  
164584-14-9P 164584-15-0P 164584-16-1P  
164584-17-2P 164584-18-3P 164584-19-4P 164584-20-7P

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation of fluorine-containing trialkyl- and trialkoxysilane and trialkoxysilatane monomers for glass fiber treatment from trihydroperfluoroalkanols)

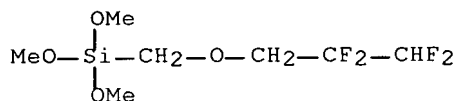
IT 93574-95-9P

RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of fluorine-containing trialkyl- and trialkoxysilane and trialkoxysilatane monomers for glass fiber treatment from trihydroperfluoroalkanols)

RN 93574-95-9 HCAPLUS

CN Silane, trimethoxy[(2,2,3,3-tetrafluoropropoxy)methyl]- (9CI) (CA INDEX NAME)



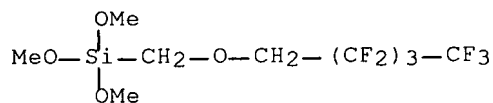
IT 93574-93-7P 93574-96-0P 93574-97-1P  
164584-13-8P 164584-14-9P 164584-15-0P  
164584-16-1P 164584-17-2P 164584-18-3P

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

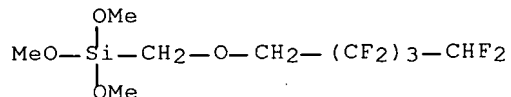
(preparation of fluorine-containing trialkyl- and trialkoxysilane and trialkoxysilatane monomers for glass fiber treatment from

trihydroperfluoroalkanols)

RN 93574-93-7 HCAPLUS

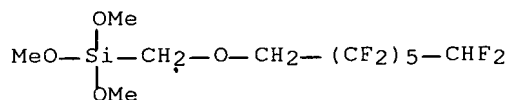
CN Silane, trimethoxy[[ (2,2,3,3,4,4,5,5,5-nonafluoropentyl)oxy)methyl]- (9CI)  
(CA INDEX NAME)

RN 93574-96-0 HCAPLUS

CN Silane, trimethoxy[[ (2,2,3,3,4,4,5,5-octafluoropentyl)oxy)methyl]- (9CI)  
(CA INDEX NAME)

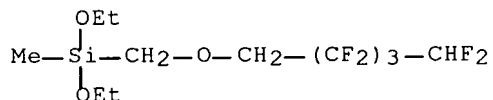
RN 93574-97-1 HCAPLUS

CN Silane, trimethoxy[[ (2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)oxy)methyl]- (9CI) (CA INDEX NAME)



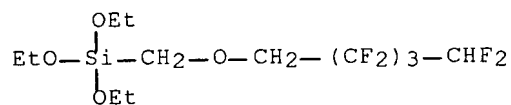
RN 164584-13-8 HCAPLUS

CN Silane, diethoxymethyl[[ (2,2,3,3,4,4,5,5-octafluoropentyl)oxy)methyl]- (9CI) (CA INDEX NAME)

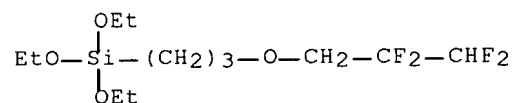


RN 164584-14-9 HCAPLUS

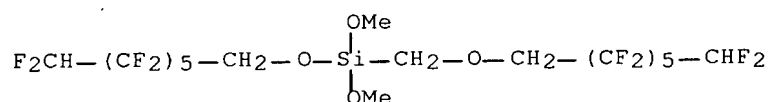
CN Silane, triethoxy[[ (2,2,3,3,4,4,5,5-octafluoropentyl)oxy)methyl]- (9CI)  
(CA INDEX NAME)



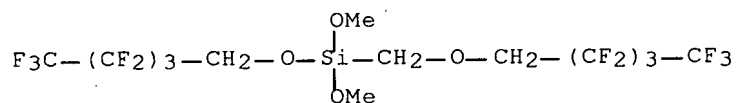
RN 164584-15-0 HCAPLUS  
 CN Silane, triethoxy[3-(2,2,3,3-tetrafluoropropoxy)propyl]- (CA INDEX NAME)



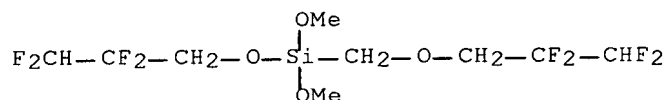
RN 164584-16-1 HCAPLUS  
 CN Silane, [(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)oxy][[(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)oxy)methyl]dimethoxy- (9CI) (CA INDEX NAME)



RN 164584-17-2 HCAPLUS  
 CN Silane, dimethoxy[(2,2,3,3,4,4,5,5,5-nonafluoropentyl)oxy][[(2,2,3,3,4,4,5,5,5-nonafluoropentyl)oxy)methyl]- (9CI) (CA INDEX NAME)



RN 164584-18-3 HCAPLUS  
 CN Silane, dimethoxy(2,2,3,3-tetrafluoropropoxy)[(2,2,3,3-tetrafluoropropoxy)methyl]- (9CI) (CA INDEX NAME)



L239 ANSWER 39 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:172025 HCAPLUS Full-text

DOCUMENT NUMBER: 118:172025

TITLE: Nanosilica dispersions, and their manufacture and use

INVENTOR(S): Eck, Herbert; Fleischmann, Gerald; Hopf, Heinrich

PATENT ASSIGNEE(S): Wacker-Chemie G.m.b.H., Germany

SOURCE: Ger. Offen., 5 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4124588	A1	19930128	DE 1991-4124588	19910724 <--
PRIORITY APPLN. INFO.:			DE 1991-4124588	19910724 <--

ED Entered STN: 01 May 1993

AB The silica has average particle size 3-45 nm, and solids content 0.5-25%. The silica is manufactured by hydrolyzing tetraalkoxysilanes, optionally in admixt. with organoalkoxysilanes, and, optionally, in preliminary condensed form, in dilute NH<sub>4</sub>OH, during or following which the desired amount of NH<sub>3</sub> and resulting alc. are removed by distillation. The silica is used as filler in plastics and natural rubber, strengthening agent in stone manufacture, and as additive in emulsions and dispersions that are microencapsulated or dried by thin-film process or spray drying. A clear solution, consisting of 500 g water, 20 mL 25% NH<sub>4</sub>OH, and 200 g (EtO)<sub>4</sub>Si (pH 8; temperature 40°), was distilled to remove 169 g EtOH to give a dispersion having solids content 12% and pH 8.6, and containing EtOH 4 and NH<sub>4</sub>OH 0.2%.

IC ICM C01B033-18

ICS C08K003-36; C04B014-04

ICI C08K003-36, C08K009-10

CC 49-8 (Industrial Inorganic Chemicals)

Section cross-reference(s): 38, 39

IT 2031-67-6P, Methyltriethoxysilane 2943-75-1P, Octyltriethoxysilane

14814-09-6P,  $\gamma$ -Mercaptopropyltriethoxysilane 146847-67-8PRL: PREP (Preparation)

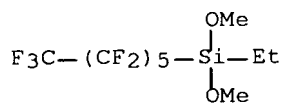
(comps. containing tetraethoxysilane and, hydrolysis of, alc. and ammonia removal in, by distillation, for microsilica filler dispersions for plastics and rubber)

IT 146847-67-8PRL: PREP (Preparation)

(comps. containing tetraethoxysilane and, hydrolysis of, alc. and ammonia removal in, by distillation, for microsilica filler dispersions for plastics and rubber)

RN 146847-67-8 HCAPLUS

CN Silane, ethyldimethoxy(tridecafluorohexyl)- (9CI) (CA INDEX NAME)

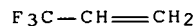




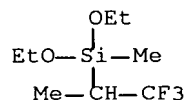
L239 ANSWER 40 OF 62 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1983:72424 HCAPLUS Full-text  
 DOCUMENT NUMBER: 98:72424  
 TITLE: Fluoroalkylsilanes  
 PATENT ASSIGNEE(S): Sagami Chemical Research Center, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57140787	A	19820831	JP 1981-25539	19810225 <--
JP 63038031	B	19880728		

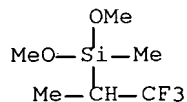
PRIORITY APPLN. INFO.: JP 1981-25539 19810225 <--  
 ED Entered STN: 12 May 1984  
 AB R1CHMeSiR2Me (I; R = Cl, alkoxy; R1 = perfluoroalkyl) were prepared by addition reaction of R1CH:CH2 with HSiCl2Me in the presence of Pd complex followed by optional reaction with alcs. Thus, autoclaving a mixture of 192 mg (PhCN)2PdCl2, 262 mg Ph3P, 10.32 g HSiCl2Me, and 12.78 g F3CCH:CH2 at 100° for 14 h gave 16.63 g I (R = Cl, R1 = F3C).  
 IC C07F007-12; C07F007-18  
 ICA C08G077-04  
 CC 29-6 (Organometallic and Organometalloidal Compounds)  
 IT 677-21-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (addition reaction of, with dichloromethylsilane)  
 IT 84442-91-1P 84442-92-2P 84442-93-3P 84442-94-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 677-21-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (addition reaction of, with dichloromethylsilane)  
 RN 677-21-4 HCAPLUS  
 CN 1-Propene, 3,3,3-trifluoro- (CA INDEX NAME)



IT 84442-93-3P 84442-94-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 84442-93-3 HCAPLUS  
 CN Silane, diethoxymethyl(2,2,2-trifluoro-1-methylethyl)- (9CI) (CA INDEX NAME)



RN 84442-94-4 HCAPLUS  
 CN Silane, dimethoxymethyl(2,2,2-trifluoro-1-methylethyl)- (9CI) (CA INDEX NAME)



=> d ibib ab 41

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 41 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 6410460 BABS Full-text

TITLE: New Silyl Ether Reagents for the Absolute Stereochemical Determination of Secondary Alcohols

AUTHOR(S): Williamson, R. Thomas; Sosa, Ana C. Barrios; Mitra, Abhijit; Seaton, Pamela J.; Weibel, Douglas B.; Schroeder, Frank C.; Meinwald, Jerrold; Koehn, Frank E.

SOURCE: Org.Lett. (2003), 5(10), 1745 - 1748  
 CODEN: ORLEF7

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Herein we report a new set of silyl ether reagents for the determining the enantiomeric purity and absolute stereochemistry of secondary alcohols. These derivatives are easily synthesized, provide straightforward spectroscopic results, and allow for facile recovery of the original chiral alcohol.

=> d ibib ab 42-52

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 42 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 6421925 BABS Full-text

TITLE: Enhancement of the Efficiency of the Low Temperature Method for Kinetic Resolution of Primary Alcohols by Optimizing the Organic Bridges in Porous Ceramic-Immobilized Lipase

AUTHOR(S): Sakai, Takashi; Hayashi, Kyoko; Yano, Fumika; Takami, Mie; Ino, Megumi; Korenaga, Toshinobu; Ema, Tadashi

SOURCE: Bull.Chem.Soc.Jpn. (2003), 76(7), 1441 -

1446

CODEN: BCSJAB

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB For the enhancement of enantioselectivity and acceleration of the reaction rate in the lipase-catalyzed resolution of primary **alcohols**, the use of a very low reaction temperature (-30 deg C) and an immobilized lipase on organic bridges-coated porous ceramic support was found to be highly effective. Furthermore, the structure of the organic bridges greatly influenced the temperature effect between ln E and 1/T as well as the reaction rate. Among the organic bridges examined in the resolution of (+/-)-2-hydroxymethyl-1,4-benzodioxane, the 6-(2-methylpropanoyloxy)hexylsilanetrioxyl bridge was the best choice for both the E value and the reaction rate at -30 deg C.

L239 ANSWER 43 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: **6417937** BABS Full-text  
 TITLE: One-pot synthesis of poly(alkoxysilane)s by **Si-Si/Si**-O dehydrocoupling of silanes with **alcohols** using Group IV and VIII metallocene complexes  
 AUTHOR(S): Kim, Bo-Hye; Cho, Myong-Shik; Kim, Mi-Ae; Woo, Hee-Gweon  
 SOURCE: J. Organomet. Chem. (**2003**), 685(1-2), 93 - 98  
 CODEN: JORCAI  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB **Si-Si/Si**-O dehydrocoupling reactions of silanes with **alcohols** (1:1.5 mole ratio), catalyzed by Cp<sub>2</sub>MCl<sub>2</sub>/Red-Al (M=Ti, Zr) and Cp<sub>2</sub>M' (M'=Co, Ni), produced poly(alkoxysilane)s in one-pot in high yield. The silanes included p-X-C<sub>6</sub>H<sub>4</sub>SiH<sub>3</sub> (X=H, CH<sub>3</sub>, OCH<sub>3</sub>, **F**), PhCH<sub>2</sub>SiH<sub>3</sub>, and (PhSiH<sub>2</sub>)<sub>2</sub>. The **alcohols** were MeOH, EtOH, **i**-PrOH, PhOH, and CF<sub>3</sub>(CF<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>OH. The weight average molecular weight of the poly(alkoxysilane)s ranged from 600 to 8000. The dehydrocoupling reactions of phenylsilane with ethanol (1:1.5 mole ratio) using Cp<sub>2</sub>HfCl<sub>2</sub>/Red-Al and phenylsilane with ethanol (1:3 mole ratio) using Cp<sub>2</sub>TiCl<sub>2</sub>/Red-Al gave only triethoxyphenylsilane as product.

L239 ANSWER 44 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: **6172860** BABS Full-text  
 TITLE: Optically Active Antifungal Azoles. IX. An Alternative Synthetic Route for 2-((1R,2R)-2-(2,4-difluorophenyl)-2-hydroxy-1-methyl-3-(1H-1,2,4-triazol-1-yl)propyl)-4-(4-(2,2,3,3-tetrafluoropropoxy)phenyl)-3(2H,4H)-1,2,4-triazolone and Its Analogs  
 AUTHOR(S): Kitazaki, Tomoyuki; Tasaka, Akihiro; Hosono, Hiroshi; Matsushita, Yoshihiro; Itoh, Katsumi  
 SOURCE: Chem. Pharm. Bull. (**1999**), 47(3), 360 - 368  
 CODEN: CPBTAL  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB A new route for the synthesis of the optically active antifungal azole TAK-187, 2-((1R,2R)-2-(2,4-difluorophenyl)-2-hydroxy-1-methyl-3-(1H-1,2,4-triazol-1-yl)propyl)-4-(4-(2,2,3,3-tetrafluoropropoxy)phenyl)-3(2H,4H)-1,2,4-triazolone, was established. The key synthetic intermediate, 2-((1R)-2-(2,4-difluorophenyl)-2-oxo-1-methylethyl)-4-(4-(2,2,3,3-tetrafluoropropoxy)phenyl)-3(2H,4H)-1,2,4-triazolone (**8**), was prepared

starting from the esters (11a,b) of (S)-lactic acid in a stereocontrolled manner. This optically active priopropiophenone derivative 8 was converted to the one carbon-elongated (1R,2S)-diol 7, which was then reacted with 1H-1,2,4-triazole to yield TAK-187. This newly developed route was applied to the synthesis of the analogs (25a,b-28a,b) containing an imidazolone or imidazolidinone nucleus.

L239 ANSWER 45 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 6055145 BABS Full-text  
 TITLE: A Strategic Alternative to Solid Phase Synthesis: Preparation of a Small Isoxazoline Library by "Fluorous Synthesis"  
 AUTHOR(S): Studer, Armido; Curran, Denis P.  
 SOURCE: Tetrahedron (1997), 53(19), 6681-6696  
 CODEN: TETRAB  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB The preparation of highly fluorinated silyl groups and its use as a "fluorous label" are described. Allyl and propargyl alcohols are rendered fluorous upon attachment to the fluorous label. Cycloaddition of the fluorous dipolarophiles to nitrile oxides provides the corresponding isoxazol(in)es which are purified by simple liquid-liquid extractions. After detachment of the label and renewed extraction, the organic isoxazol(in)es are obtained. This new fluorous methodology allows the preparation of isoxazol(in)es in high purities without using chromatography.

L239 ANSWER 46 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 6080965 BABS Full-text  
 TITLE: Substituent effects on the reactivity of the silicon-carbon double bond. Arrhenius parameters for the reaction of 1,1-diarylsilenes with alcohols and acetic acid  
 AUTHOR(S): Bradaric, Christine J.; Leigh, William J.  
 SOURCE: Can. J. Chem. (1997), 75(10), 1393-1402  
 CODEN: CJCHAG  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB Absolute rate constants for the reaction of a series of ring-substituted 1,1-diphenylsilene derivatives with methanol, tert-butanol, and acetic acid in acetonitrile solution have been determined using nanosecond laser flash photolysis techniques. The three reactions exhibit small positive Hammett  $\rho$ -values at 23 deg C, consistent with a mechanism involving initial, reversible nucleophilic attack at silicon to form a  $\sigma$ -bonded complex that collapses to product via rate-limiting proton transfer. Deuterium kinetic isotope effects and Arrhenius parameters have been determined for the reactions of 1,1-di-(4-methylphenyl)silene and 1,1-di-(4-trifluoromethylphenyl)silene with methanol, and are compared to those for the parent compound. Proton transfer within the complex is dominated by entropic factors, resulting in negative activation energies for reaction. The trends in the data can be rationalized in terms of variations in the relative rate constants for reversion to reactants and proton transfer as a function of temperature and substituent. A comparison of the Arrhenius activation energies for reaction of acetic acid with 1,1-diphenylsilene ( $E_a = +1.9 \pm 0.3$  kcal/mol) and the more reactive di-trifluoromethyl analogue ( $E_a = +3.6 \pm 0.5$  kcal/mol) suggests that carboxylic acids also add by a stepwise mechanism, but with formation of the complex being rate determining.

L239 ANSWER 47 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 5856365 BABS Full-text  
 TITLE: Enzymatic Preparation of Optically Active  
 Silylmethanol Derivatives Having A Stereogenic  
Silicon Atom by Hydrolase-catalyzed  
 Enantioselective Esterification  
 AUTHOR(S): Fukui, Toshiaki; Kawamoto, Takuo; Tanaka, Atsuo  
 SOURCE: Tetrahedron: Asymmetry (1994), 5(1), 73-82  
 CODEN: TASYE3  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB Kinetic resolution of ethylmethylphenylsilylmethanol, a primary alcohol having a stereogenic silicon atom, was tried by hydrolase catalyzed enantioselective reactions. Among twenty kinds of hydrolases examined, a commercial crude papain preparation was found to exhibit the highest enantioselectivity with moderate activity toward the silicon containing alcohol on esterification with 5-phenylpentanoic acid in an organic solvent system, and the (+)-enantiomer of 92percent ee was obtained as the remaining substrate. Several silylmethanol derivatives could be also resolved by this enantioselective esterification even though it was difficult to synthesize such chiral quaternary silanes with high optical purity by chemical methods due to the absence of leaving groups on the silicon atom. These results demonstrate that enzymes can recognize the configuration not only of carbon atoms but also of silicon atoms, and indicate the usefulness of biocatalysts for preparing optically active silanes.

L239 ANSWER 48 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 5854579 BABS Full-text  
 TITLE: Photochemical Protodesilylation of  
 2-R<sub>3</sub>Si-1,3-dimethoxybenzenes. Direct Observation of  
 \$b\$-Silyl-Substituted Cyclohexadienyl Cations  
 AUTHOR(S): Lew, Calvin S. Q.; McClelland, Robert A.  
 SOURCE: J. Amer. Chem. Soc. (1993), 115(24),  
 11516-11520  
 CODEN: JACSAT  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB Irradiation (254 nm) of the title compounds 5 (R<sub>3</sub>Si = Me<sub>3</sub>Si, Ph<sub>2</sub>MeSi, and 4-XC<sub>6</sub>H<sub>4</sub>Me<sub>2</sub>Si with X = 4-MeO, 4-Me, H, 4-F, and 4-Cl) in 1,1,1,3,3,3-hexafluoroisopropyl alcohol (HFIP) results in quantitative conversion to 1,3-dimethoxybenzene and the ether R<sub>3</sub>SiOCH(CF<sub>3</sub>)<sub>2</sub>. This reaction proceeds via selective protonation at the 2-position of excited 5 to give an intermediate 1-R<sub>3</sub>Si-2,6-dimethoxybenzenium ion, 6. These cations are detected as transients following 248-nm laser flash photolysis (LFP) and represent the first examples of \$b\$-silyl-substituted cyclohexadienyl cations observed either with LFP or under stable-ion conditions. The direct kinetic analysis possible with LFP demonstrates that the cations 6 undergo desilylation preferentially over deprotonation. Moreover, the desilylation in an associative process with nucleophilic participation in the Si-C bond breaking. Evidence for this takes the form of rate accelerations by the added alcohols MeOH and tBuOH, with corresponding amounts of the ether R<sub>3</sub>SiOCH<sub>3</sub> being formed as the product. The solvent reaction is indicated as being associative by a large negative entropy of activation. Although the reactions are bimolecular, negative \$r\$ values are obtained for the ArMe<sub>2</sub>Si series reacting with tBuOH and HFIP. This indicates that with these nucleophiles, there is silyl-cation character in the transition state, i.e., that C-Si bond breaking is more advanced than Si-O

bond making. This study provide direct evidence that  $\beta$ -silyl-substituted carbocations react with nucleophilic participation in the Si-C bond-breaking process.

L239 ANSWER 49 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: **5917251** BABS Full-text  
 TITLE: Reactions of the sterically hindered organosilicon diol (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OH)<sub>2</sub> and some of its derivatives  
 AUTHOR(S): Eaborn, Colin; Lickiss, Paul D.; Taylor, Alan D.  
 SOURCE: J. Organomet. Chem. (**1988**), 340, 283-292  
 CODEN: JORCAI  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB The diol R<sub>2</sub>C(SiMe<sub>2</sub>OH)<sub>2</sub> (R=Me<sub>3</sub>Si) has been shown to react with: SO<sub>2</sub>Cl<sub>2</sub> to give  $\langle \text{formula} \rangle$ ; SOCl<sub>2</sub> to give R<sub>2</sub>C(SiMe<sub>2</sub>Cl)<sub>2</sub>; Me<sub>3</sub>SiI or Me<sub>3</sub>SiCl to give R<sub>2</sub>C(SiMe<sub>2</sub>OSiMe<sub>3</sub>)<sub>2</sub>; R'COCl; (R'=Me or CF<sub>3</sub>) to give R<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CR')(SiMe<sub>2</sub>Cl); (R'CO)<sub>2</sub>O (R'=Me or CF<sub>3</sub>) to give R<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CR')<sub>2</sub>; with MeOH containing acid to give R<sub>2</sub>C(SiMe<sub>2</sub>OMe)<sub>2</sub>; with neutral MeOH to give R<sub>2</sub>C(SiMe<sub>2</sub>OMe)<sub>2</sub> and probably  $\langle \text{formula} \rangle$ ; MeLi to give R<sub>2</sub>C(SiMe<sub>2</sub>OLi)<sub>2</sub> (and the latter to react with PhMeSiF<sub>2</sub> to give  $\langle \text{formula} \rangle$ ). The diacetate R<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CMe)<sub>2</sub> reacts with CsF in MeCN to give R<sub>2</sub>C(SiMe<sub>2</sub>F)<sub>2</sub>; it does not react with NaN<sub>3</sub> or KSCN in MeCN, but the bis(trifluoroacetate) reacts with these salt and with KOCN to give R<sub>2</sub>C(SiMe<sub>2</sub>X)<sub>2</sub> (X=N<sub>3</sub>, NCS, NCO).

L239 ANSWER 50 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: **5777666** BABS Full-text  
 TITLE: 1,3 Silicon to Silicon Migration of the Methoxy Group in Solvolysis of (Bromodiphenylsilyl)(methoxydimethylsilyl)bis(trimethylsilyl)methane. Crystal Structures of (Ethoxydimethylsilyl)(methoxydiphenylsilyl)bis(trimethylsilyl)methane and (Methoxydimethylsilyl)(methoxydiphenylsilyl)bis...  
 AUTHOR(S): Buttrus, Nabeel H.; Eaborn, Colin; Lickiss, Paul D.; Najim, Sabah T.; Hitchcock, Peter B.  
 SOURCE: J. Chem. Soc. Perkin Trans. 2 (**1987**), 1753-1758  
 CODEN: JCPKBH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB In the reaction of the bromide (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiPh<sub>2</sub>Br) (1a) with EtOH the OMe group undergoes a 1,3 Si to Si migration to give exclusively the rearranged product (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OEt)(SiPh<sub>2</sub>OMe) (2). (The same product is obtained if AgClO<sub>4</sub> is present in the MeOH). The rate-determining step of the reaction is believed to involve separation of Br<sup>-</sup> anchimerically assisted by the  $\beta$ -OMe group to form a 1,3 methoxy-bridged cation. Because of such assistance the bromide (1a) and the related chloride (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiPh<sub>2</sub>Cl) are > 10<sup>8</sup> times as reactive towards MeOH as the corresponding (Me<sub>3</sub>Si)<sub>3</sub>C(SiPh<sub>2</sub>X) species, but they are somewhat less reactive than the compounds (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiMe<sub>2</sub>X). The reactions of (1a) with other alcohols or with water seem also to give rearranged species (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OR)(SiPh<sub>2</sub>OMe) (R = H, CH<sub>2</sub>Ph, CH<sub>2</sub>CF<sub>3</sub>). The structures of (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OR)(SiPh<sub>2</sub>OMe) with R = Me or Et have been determined by X-ray diffraction, and shown to involve fairly close Si-O... Si interligand contacts.

L239 ANSWER 51 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 5807117 BABS Full-textTITLE: Unimolecular Alcoholysis of Organosilicon  
Halides of the Type (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiR'<sub>2</sub>X).  
Anchimeric Assistance by and Migration of the OMe  
GroupAUTHOR(S): Eaborn, Colin; Lickiss, Paul D.; Najim, Sabah T.;  
Romanelli, M. NovellaSOURCE: J.Chem.Soc.Chem.Commun. (1985), (24),  
1754-1755

CODEN: JCCCAT

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The compound R<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiMe<sub>2</sub>Cl) (R = SiMe<sub>3</sub> throughout) reacts more rapidly with CF<sub>3</sub>CH<sub>2</sub>OH than with MeOH, and R<sub>2</sub>C(SiMe<sub>2</sub>OMe) reacts with EtOH to give exclusively the rearranged product R<sub>2</sub>C(SiMe<sub>2</sub>OEt)(SiPh<sub>2</sub>OMe), indicating that the rate-determining step of the solvolyses involves formation of a methoxy-bridged cation; migration of the OMe group also occurs in the reaction of the bromide with AgBF<sub>4</sub>.

L239 ANSWER 52 OF 62 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN

ACCESSION NUMBER: 5615311 BABS Full-textTITLE: CLEAVAGES OF SILICON-CARBON BONDS IN  
TRIS(TRIMETHYLSILYL)METHYLSILICON COMPOUNDS BY  
TRIFLUOROACETIC ACID. REARRANGEMENTS AND ANCHIMERIC  
ASSISTANCE

AUTHOR(S): Eaborn, Colin; Lickiss, Paul D.; Ramadan, Nazmi A.

SOURCE: J.Chem.Soc.Perkin Trans.2 (1984), (2),  
267-270

CODEN: JCPKBH

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The fairly high rate of the highly sterically hindered compound (Me<sub>3</sub>Si)<sub>3</sub>CSiMe<sub>2</sub>Ph with CF<sub>3</sub>CO<sub>2</sub>H <to give (Me<sub>3</sub>Si)<sub>3</sub>CSiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub> and PhH> is consistent with the view that the rate-determining step involves the transfer of a proton from the acid to the ipso-carbon atom of the ring. The formation of the rearranged species (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>F)(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>) in the reaction of (Me<sub>3</sub>Si)<sub>3</sub>CSiPhMeF with CF<sub>3</sub>CO<sub>2</sub>H suggests that the leaving of benzene from the initial protonated species generates a methyl-bridged silicon cation. Treatment of (Me<sub>3</sub>Si)<sub>3</sub>CSiPhMeI with AgO<sub>2</sub>CCF<sub>3</sub>-CF<sub>3</sub>CO<sub>2</sub>H gives the rearranged (Me<sub>3</sub>Si)<sub>2</sub>C(SiPhMe<sub>2</sub>)(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>), which reacts with CF<sub>3</sub>CO<sub>2</sub>H under reflux to give (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>)<sub>2</sub>. In remarkable example of anchimeric assistance by a *g*-OMe group the compound (Me<sub>3</sub>Si)<sub>3</sub>CSiMe<sub>2</sub>OMe reacts readily with CF<sub>3</sub>CO<sub>2</sub>H at room temperature with evolution of methane, and formation finally of (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>)<sub>2</sub>, apparently via (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>OMe)(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>). Sulphuric acid reacts very vigorously with (Me<sub>3</sub>Si)<sub>3</sub>CSiMe<sub>2</sub>OMe, and hydrolysis of the initial product gives the diol (Me<sub>3</sub>Si)<sub>3</sub>C(SiMe<sub>2</sub>OH)<sub>2</sub>. This diol can also be obtained by hydrolysis of (Me<sub>3</sub>Si)<sub>2</sub>C(SiMe<sub>2</sub>O<sub>2</sub>CCF<sub>3</sub>)<sub>2</sub>.

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YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 53 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-630054 [64] WPIX  
 DOC. NO. CPI: C2005-188857 [64]  
 DOC. NO. NON-CPI: N2005-517484 [64]  
 TITLE: New heterocyclic containing polymers useful in fuel cells  
 and other ion-conducting applications and useful for the  
 fabrication of proton-exchange membranes  
 DERWENT CLASS: A26; A41; E13; L03; X16  
 INVENTOR: LI S; LI W; LIU M; ZHOU Z; HASE K  
 PATENT ASSIGNEE: (TOYT-C) TOYOTA TECH CENT USA INC; (GEOR-N) GEORGIA TECH  
 RES CORP; (GEOR-N) GEORGIA TECHNOLOGY RES CORP; (HASE-I)  
 HASE K; (LISS-I) LI S; (LIWW-I) LI W; (LIUM-I) LIU M;  
 (ZHOU-I) ZHOU Z; (TOYT-C) TOYOTA TECH CENT  
 COUNTRY COUNT: 107

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005072413	A2	20050811	(200564)*	EN	49	[7]
US 20060111530	A1	20060525	(200635)	EN		
EP 1713794	A2	20061025	(200670)	EN		
CN 1926131	A	20070307	(200752)	ZH		
JP 2007523066	W	20070816	(200755)	JA	37	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005072413	A2	WO 2005-US2922	20050127
US 20060111530	A1	Provisional	<b>US 2004-539641P 20040127</b>
US 20060111530	A1	Provisional	<b>US 2004-614814P 20040930</b>
US 20060111530	A1		US 2005-44527 20050126
CN 1926131	A		CN 2005-80006439 20050127
EP 1713794	A2		EP 2005-712383 20050127
EP 1713794	A2		WO 2005-US2922 20050127
JP 2007523066	W		WO 2005-US2922 20050127
JP 2007523066	W		JP 2006-551531 20050127

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1713794	A2	WO 2005072413
JP 2007523066	W	WO 2005072413

PRIORITY APPLN. INFO: US 2005-44527 20050126  
**US 2004-539641P 20040127**  
**US 2004-614814P 20040930**

## INT. PATENT CLASSIF.:

MAIN: H01M  
 IPC ORIGINAL: C07D0403-00 [I,C]; C07D0403-02 [I,A]; C07D0403-12 [I,A];  
 C08F0126-00 [I,C]; C08F0126-06 [I,A]; C08F0126-08 [I,A];  
 C08F0226-00 [I,C]; C08F0226-00 [I,C]; C08F0226-06 [I,A];  
 C08F0226-06 [I,A]; C07D0233-00 [I,C]; C07D0233-64 [I,A];  
 C07D0239-00 [I,C]; C07D0239-38 [I,A]; C07D0249-00 [I,C];  
 C07D0249-04 [I,A]; C07D0249-06 [I,A]; C07F0007-00 [I,C];



C07F0007-18 [I,A]; C08F0012-00 [I,C]; C08F0012-30 [I,A];  
 C08F0230-00 [I,C]; C08F0230-02 [I,A]; C08F0026-00 [I,C];  
 C08F0026-06 [I,A]; C08F0028-00 [I,C]; C08F0028-04 [I,A];  
 C08G0077-00 [I,C]; C08G0077-392 [I,A]; C08J0005-20 [I,C];  
 C08J0005-22 [I,A]; C08K0003-00 [I,C]; C08K0003-24 [I,A];  
 C08L0101-00 [I,C]; C08L0101-12 [I,A]; H01B0001-06 [I,A];  
 H01B0001-06 [I,C]; H01M0008-02 [I,A]; H01M0008-02 [I,C]

## BASIC ABSTRACT:

WO 2005072413 A2 UPAB: 20051223

NOVELTY - Heterocyclic containing polymers (I) are new.

DETAILED DESCRIPTION - Heterocyclic containing polymers (I) of formula X-Y-Z are new.

X = a heterocycle;

Y = a linking group; and

Z = a polymerizable group or a polymer backbone.

INDEPENDENT CLAIMS are also included for

(1) preparation of (I);

(2) a proton-conducting polymer including: a polymer backbone; a nitrogen-containing heterocycle (having a pKa of less than approximately 5) attached to the polymer backbone or included in the polymer backbone; a hybrid inorganic-organic matrix including silicon atoms; an acid group attached to the hybrid inorganic-organic matrix; and a nitrogen-containing heterocycle attached to the hybrid inorganic-organic matrix;

(3) a proton-conducting composite comprising: an inorganic acid compound or an acid-group containing compound; a compound including a first heterocycle connected to a second heterocycle by a linking group (having 2-20 atoms);

(4) a polymer electrolyte membrane comprising (I) and the proton-conducting polymer; and

(5) a fuel cell including the polymer electrolyte membrane.

USE - (I) are useful in fuel cells (claimed) and other ion-conducting applications. (I) are useful for the fabrication of proton-exchange membranes.

ADVANTAGE - (I) exhibit excellent/high proton conductivity in low humidity, excellent mechanical properties, high thermal stability, dense structure and good mechanical properties. MANUAL CODE: CPI: A09-A03; A12-E06B; E05-E01B; E07-D; L03-E04A2;

N01-A01; N02-D; N03-E; N04-D01; N05-D; N05-E01; N07-D06;

N07-D08

EPI: X16-C01C

## TECH

POLYMERS - Preparation (claimed): Preparation of (I) comprises reaction of hybrid inorganic-organic copolymers with fluorinated-imidazole-ring terminated organic side chains, followed by hydrolysis in the presence of solvents (e.g. methanol and tetrahydrofuran) to give fluorinated-imidazole grafted alkoxysilane compounds of formula (A) (representative of (I)). Preferred Components: X has a pKa of less than 7 (preferably less than or equal to 2.6). X is a nitrogen, or oxygen or sulfur-containing heterocycle (preferably 1,2,4-triazole, 1,2,3-triazole, 1H-benzotriazole, pyrimidine, pyrazine, purine, imidazole, pyrazole, pyridine and their derivatives). The nitrogen-containing heterocycle has an electron-withdrawing group (preferably fluorine) attached to it, a fluorine atom or a fluoroalkyl group as a substituent. The electron-withdrawing group is a fluorine atom or a group containing at least one fluorine atom. The acid groups are phosphonic acid groups.

The nitrogen-containing heterocycle is 1,2,4-triazole, 1,2,3-triazole, pyrimidine (all preferred), 1H-benzotriazole, purine, imidazole, pyrazole, pyrazine, pyridine (fluorinated pyridines) and their derivatives, a halogenated imidazole or a halogenated pyridine.

The polymer backbone is a poly(vinyl) polymer. The composite further comprises a proton-conducting polymer. The compound has H1-L-H2 (where H1

is a first nitrogen-containing heterocycle; H2 is a second nitrogen-containing heterocycle; and L is the linking group). The acid-group containing compound is a polymer. The polymer is a sulfonated polymer or sulfonated polysulfone. The proton-conducting composite comprises an acid-group containing polymer and a heterocycle compound having flexible organic group substituents.

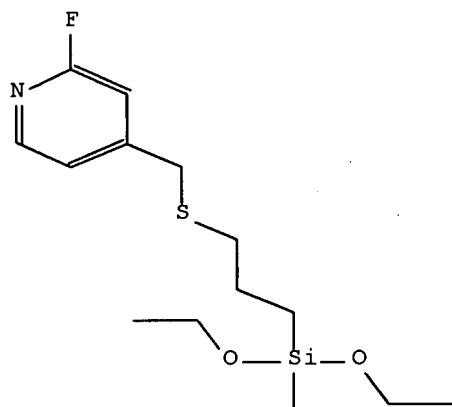
ABEX DEFINITIONS - Preferred Definitions: - X = pyrimidine, pyrazole or triazole; - Y = an alkyl chain having two or more carbon atoms; and - Z = poly(vinyl) polymer backbone.

EXAMPLE - 3-Dimethylhydrazone-1,1,1-trifluoro-2-propanone (1 mmol) and ammonium acetate (1 mmol) in methanol (6 ml), 4-pentenal (2 mmol) was added. The mixture was stirred for 1 hour at room temperature and then at 50 degrees C for 48 hours. After cooling, dichloromethane (100 ml) was added and washed with saturated sodium carbonate solution. The reaction mixture was worked up to give 2-(3-butenyl)-4-(trifluoromethyl)-1H-imidazole (50 %).

AN.S DCR-1136404

CN.S 4-[3-(Diethoxy-methyl-silanyl)-propylsulfanylmethyl]-2-fluoro-pyridine

SDCN RAJ41Y



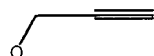
AN.S DCR-6474

CN.P PROPYNOL

CN.S Prop-2-yn-1-ol

SDCN R00821

SDRN 0821

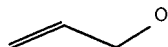


AN.S DCR-417

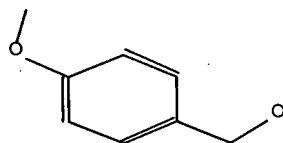
CN.P ALLYL-ALCOHOL

CN.S Prop-2-en-1-ol

SDCN R00820  
SDRN 0820



AN.S DCR-5671  
CN.P ANISE-ALCOHOL  
CN.S (4-Methoxy-phenyl)-methanol  
SDCN RA0DCE

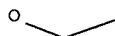


AN.S DCR-139  
CN.P POTASSIUM ETHOXIDE  
CN.S Potassium ethanolated  
SDCN RAl1YH

CM 1

K

CM 2



OF 62 WPIX COPYRIGHT 2007

THE THOMSON CORP on STN

L239 ANSWER 54 OF 62	WPIX COPYRIGHT 2007	THE THOMSON CORP on STN
ACCESSION NUMBER:	2005-716010 [74]	WPIX
DOC. NO. CPI:	C2005-218156 [74]	
TITLE:	New N-(triorganylsilylorganyl) carbamino acid organylester useful e.g. to modify surfaces (e.g. glass, leather), as lubricant, as additives in cosmetic and surfactant preparations, as modifier in fluorine and silicon rubber	
DERWENT CLASS:	A60; D18; D21; E11; F06; F09; G02; H07; L01	
INVENTOR:	KORNEK T	
PATENT ASSIGNEE:	(WACK-C) WACKER CHEM GMBH	
COUNTRY COUNT:	109	

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 102004028321	B3	20051103	(200574)*	DE	8[0]	
WO 2005121156	A1	20051222	(200603)	DE		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 102004028321	B3	<b>DE 2004-102004028321</b>	
<b>20040611</b>			
WO 2005121156	A1	WO 2005-EP5953	20050602

PRIORITY APPLN. INFO: **DE 2004-102004028321 20040611**

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-18 [I,A]

BASIC ABSTRACT:

DE 102004028321 B3 UPAB: 20060125

NOVELTY - N-(Triorganylsilylorganyl) carbamino acid organylester compounds (A) are new.

DETAILED DESCRIPTION - N-(Triorganylsilylorganyl) carbamino acid organylester compounds (A) of formula (RO)3-mSi(R1)mCH2N(H)CO2CH2(CF2)qX (I), (H3CO)3-mSi(R1)m(CH2)3N(H)CO2CH2(CF2)qX (II) or (H3CCH2O)3-mSi(R1)m(CH2)3N(H)CO2CH2(CF2)qF (III) are new.

m = 0-2;

q = 1-10;

X = H or F;

R = 1-15C hydrocarbon or acetyl; and

R1 = 1-15C hydrocarbon.

An INDEPENDENT CLAIM is also included for the preparation of (A) (fluoro containing N-(triorganylsilylorganyl)carbamino acid organyl ester compound).

USE - (A) is useful for the modification of surfaces (e.g. glass, plastics textiles, paper, leather and mineralized materials), as additives in surfactant and cosmetic preparations, as lubricant or modifier in fluoro- or silicon rubber (claimed).

ADVANTAGE - The method of preparing (A) is simple, economical and provides (A) in high yields, high purity, and high hydrolytic reactivities.

MANUAL CODE:

CPI: A08-M03; A08-S01; D07-B; D08-B; D08-B13; E05-E02;  
F03-C; F03-C05; F05-A06B; G02-A05; G02-A05C; G02-A05K;  
H07-A02; L01-G05; N03-G

TECH

ORGANIC CHEMISTRY - Preparation (claimed): Preparation of (A) comprises reaction of (triorganylsilylorganyl) isocyanate with fluoro containing **alcohol**. Preferred Process: In the preparation process, a catalyst (preferably dibutyl tin dilaurate) is used.

ABEX DEFINITIONS - Preferred Definitions: - R, R1 = 1-8C hydrocarbon.

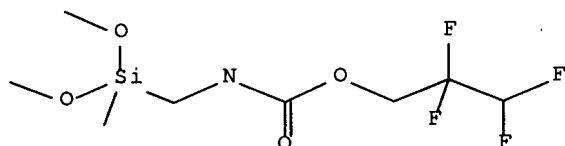
SPECIFIC COMPOUNDS - 210 Compounds (A) are specifically disclosed e.g. N-(dimethoxy(methyl)silylmethyl)carbamino acid-2,2,3,3-tetrafluoropropylester (A1).

EXAMPLE - A mixture of (dimethoxy(methyl)silylmethyl)isocyanate (50 g) and dibutyltin dilaurate (0.45 g) was added to 2,2,3,3-tetrafluoropropanol (40.9 g) within 30 minutes at 50degreesC. The obtained mixture was heated at 70degreesC and agitated for 30 minutes to give N-(dimethoxy(methyl)silylmethyl)carbamino acid-2,2,3,3-tetrafluoropropylester in quantitative yield and a purity of 95%.

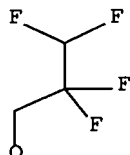
AN.S DCR-1171311

CN.S [(Dimethoxy-methyl-silanyl)-methyl]-carbamic acid 2,2,3,3-tetrafluoro-

propyl ester  
SDCN RAJULZ



AN.S DCR-74134  
CN.P 2,2,3,3-TETRAFLUOROPROPANOL  
CN.S 2,2,3,3-Tetrafluoro-propan-1-ol  
SDCN R06465



L239 ANSWER 55 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-212145 [20] WPIX  
DOC. NO. CPI: C2004-084106 [20]  
TITLE: Preparation of N-silylorganocarbamate useful as reactant  
for preparing isocyanurate involves reacting a mixture of  
aminoorganosilane and basic catalyst at an elevated  
temperature with an organocarbonate ester  
DERWENT CLASS: A60; B05; C01; E11  
INVENTOR: CHILDRESS R S; GEDON S C; JACKSON M B  
PATENT ASSIGNEE: (GENE-C) GENERAL ELECTRIC CO  
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6673954	B1	20040106	(200420)*	EN	7[0]	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6673954	B1	US 2003-368830	20030219

PRIORITY APPLN. INFO: US 2003-368830 20030219  
INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-18 [I,A]  
 BASIC ABSTRACT:

US 6673954 B1 UPAB: 20050528

NOVELTY - Preparation of N-silylorganocarbamate involves reacting a mixture of aminoorganosilane and basic catalyst at an elevated temperature with an organocarbonate ester.

DETAILED DESCRIPTION - Preparation of N-silylorganocarbamate of formula (R3)<sub>n</sub>(R2)<sub>3-n</sub>SiR1NHC(O)OR6 (I) involves reacting a mixture of aminoorganosilane of formula (R3)<sub>n</sub>(R2)<sub>3-n</sub>SiR1NH2 (II) and basic catalyst (preferably alcoholate) at an elevated temperature with an organocarbonate ester of formula R4OC(O)OR4 (III).

R1 = divalent 1-20C hydrocarbon;

R2, R3 = 1-20C alkyl, 1-20C alkoxy, 6-10C aryl, 5-10C aryloxy, or H;

n = 0-3;

R4 = 1-20C (halo)hydrocarbyl; or

2 R4 = 2-6C alkylene;

R5 = 2-6C alkylene; and

R6 = R4 or R5H;

provided that at least one of R2 and R3 is alkoxy.

USE - For the preparation of N-silylorganocarbamate (claimed), which is useful as reactant for preparing isocyanurate.

ADVANTAGE - The method is continuous and the excess organocarbonate ester is recycled. The method increases the production of carbamate by reducing byproducts. The reaction from the start is carried out at elevated temperature thus substantially accelerating the reaction and increasing the yield of N-silylorganocarbamate product. MANUAL CODE: CPI: A08-M01D; B05-B01B; C05-B01B; E05-E01; E05-E02D;

E05-G08; E05-G09D

#### TECH

ORGANIC CHEMISTRY - Preferred Method: The elevated temperature is 50-150 (preferably 70-110) degrees C. The method further involves neutralizing (I) with an acidic agent. The neutralized (I) is filtered using pressure and/or vacuum to remove volatiles, in presence of dry inert gas. (I) is stripped to remove excess alcohol or by product. Preferred Components: The aminoorganosilane is 3-aminopropyltrimethoxysilane, 3-aminopropyldimethylmethoxysilane, 3-aminopropylmethyldimethoxysilane, 3-(aminopropyl)ethyldimethoxysilane, 3-aminopropyltriethoxysilane, 3-aminopropyldimethylethoxysilane, 3-aminopropylphenyldimethoxysilane, 2-aminoethyltriethoxysilane, 4-aminobutyltriethoxysilane, 4-aminobutyldimethoxysilane, 4-aminobutylmethyldimethoxysilane, 4-(trimethoxysilyl)-2-butanamine, 3-(diethoxy(hexyloxy)silyl)-1-propanamine, 3-(tris(pentyloxy)silyl)-1-propanamine, 3-(tris(2,2,2-trifluoroethoxy)silyl)-1-propanamine, 3-(tris(2-(2-phenoxyethoxy)ethoxy)silyl)-1-propanamine, 3-(tris((2-(2-ethylhexyl)oxy)silyl)-1-propanamine, 3-(tris(hexyloxy)silyl)-1-propanamine, 3-triisopropoxysilylpropylamine, 3-(tris(3-methylbutoxy)silyl)-1-propanamine, 3-(tris(2-(ethoxyethoxy)silyl)-1-propanamine, 3-(bis(1,1-dimethylethoxy)methoxysilyl)-1-propanamine, 3-((1,1-dimethylethoxy)diethoxysilyl)-1-propanamine, 3-((1,1-dimethylethoxy)dimethoxysilyl)-1-propanamine, 3-(trimethoxysilyl)-1-pentanamine, 10,10-bis(2-(2-ethoxyethoxy)ethoxy)-3,6,9-trioxa-10-silatridecane-13-amine, 13,13-bis(2-(2-(2-ethoxyethoxy)ethoxy)ethoxy)-3,6,9,12-tetraoxa-13-silahexadecane-16-amine, 4-amino-3,3-dimethylbutyltrimethoxysilane, or 4-amino-3,3-dimethylbutyltriethoxysilane. The organocarbonate ester is dimethyl carbonate, diethyl carbonate, dipropyl carbonate, diisopropyl carbonate, dibutyl carbonate, dihexyl carbonate, methyl ethyl carbonate, methyl butyl carbonate, diphenyl carbonate, methyl phenyl carbonate, ethylene carbonate, or propylene carbonate. The acidic agent is glacial acetic acid, propionic acid, butyric acid, hexanoic acid, oleic acid, maleic

acid, fumaric acid and/or succinic acid. The basic catalyst is an alkoxide of an alkali metal or alkaline earth metal. The alkoxide is sodium methoxide, sodium ethoxide, sodium propoxide, sodium tert-butoxide, potassium methoxide, potassium ethoxide, potassium propoxide, potassium tert-butoxide, lithium methoxide, lithium ethoxide, lithium propoxide, or lithium tert-butoxide.

INORGANIC CHEMISTRY - Preferred Components: The acidic agent is anhydrous hydrochloric acid, and/or anhydrous phosphoric acid.

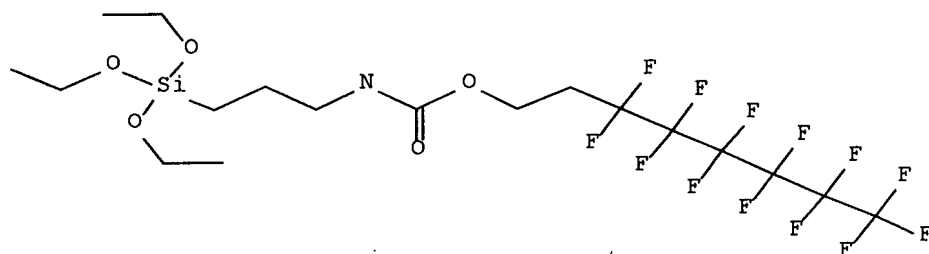
ABEX DEFINITIONS - Preferred Definitions: - R1 = methylene, ethylene, 1,2-propylene, 1,3-propylene, 2-methyl-1,3-propylene, 3-methyl-1,3-propylene, 3,3-dimethyl-1,3-propylene, ethylidene, isopropylidene, 3-methyl-1,4-butylene, or 3,3-dimethyl-1,4-butylene; - R2, R3 = methyl, ethyl, propyl, isopropyl, butyl, tert-butyl, isobutyl, pentyl, dodecyl, methoxy, ethoxy, propoxy, isopropoxy, butoxy, phenyl, or phenoxy; - R4 = methyl, ethyl, propyl, isopropyl, butyl, hexyl, or phenyl; and - R5 = ethylene.

SPECIFIC COMPOUNDS - Preparation of 15 compounds (I) is specifically claimed, e.g. 3-((triethoxysilyl)propyl)-carbamic acid ethyl ester (Ia).

EXAMPLE - Diethyl carbonate (265 lbs) was heated to 80 degrees C with agitation. After 45 minutes, a solution of gamma-aminopropyltriethoxysilane (438 lbs), A-1100 silane (RTM) and 25 wt.% solution of sodium ethylate (7 lbs) in ethanol was added. After addition the mixture was agitated at 80 degrees C for 2.5 hours. The resulting solution was cooled, neutralized with glacial acetic acid and stripped of volatile organic components. After workup, N-(3-triethoxysilylpropyl)ethyl carbamate was obtained.

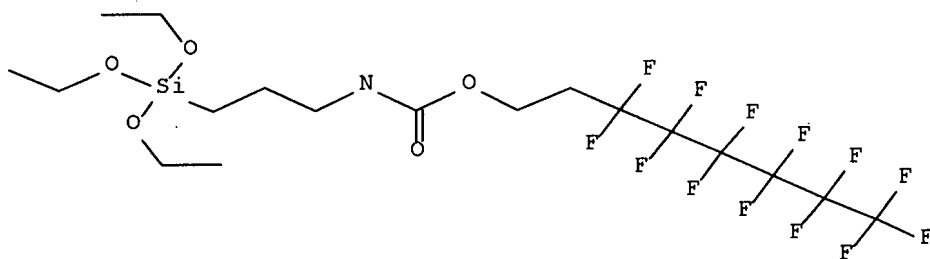
AN.S DCR-841196

SDCN RAD02W



AN.S DCR-841196

SDCN RAD02W



L239 ANSWER 56 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-033393 [04] WPIX  
 DOC. NO. CPI: C2005-026258 [09]  
 DOC. NO. NON-CPI: N2005-065061 [09]  
 TITLE: Fluorine-containing aromatic group-having compound used  
 for forming thin film of electronic-electrical equipment,  
 is new  
 DERWENT CLASS: A85; E19; L03; U11; V04; X12  
 INVENTOR: TSURUOKA K; YOKOZUKA T  
 PATENT ASSIGNEE: (ASAG-C) ASAHI GLASS CO LTD  
 COUNTRY COUNT: 1

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2004300089	A	20041028	(200504)*	JA	22[0]	<--

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004300089	A	<u>JP 2003-96408</u>	<u>20030331</u>

PRIORITY APPLN. INFO: JP 2003-96408 20030331

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07C0025-00 [I,C]; C07C0025-24 [I,A]; C07C0043-00 [I,C];  
 C07C0043-29 [I,A]; C07F0007-00 [I,C]; C07F0007-18 [I,A];  
 C09D0201-00 [I,A]; C09D0201-00 [I,C]; C09D0007-12 [I,A];  
 C09D0007-12 [I,C]

## BASIC ABSTRACT:

JP 2004300089 A UPAB: 20050707

NOVELTY - A fluorine-containing aromatic group-having compound (1), is new.

DETAILED DESCRIPTION - A fluorine-containing aromatic group-having compound of formula (1), is new.

$$V-(-ArF-(-(Y)m-C'=C(Z)-Q))_p \quad (1)$$

ArF = fluorine-containing aromatic group having valency of (n+1);

Y = -T-group, -O-T-group or -S-T-group;

T = 1-8C alkylene group optionally substituted with halogen atom, bivalent cyclic aliphatic group, or phenylene group optionally substituted by halogen atom or 1-4C alkyl group;

Q = H atom, halogen atom, 1-8C alkyl group optionally substituted with halogen atom, univalent cyclic aliphatic group or phenyl group optionally substituted by halogen atom or 1-4C alkyl group;



Z = silyl group having one or more hydrolyzable group substituted on either C or C';

m = 0 or 1;

n = 1-5; and

p = 1-3.

When p is 1, V is fluorine atom or univalent fluorine-containing aromatic group. When p is 2, V is single bond or bivalent fluorine-containing aromatic group. When p is 3, V is trivalent fluorine-containing aromatic group. Z couples with at least one of two carbon atoms having double bond and hydrogen atom couples with other carbon atom.

INDEPENDENT CLAIMS are included for the following:

(1) partial-hydrolysis condensate, which is formed by carrying out partial-hydrolysis condensation of the novel compound;

(2) application composition, contains the partial-hydrolysis condensate and solvent;

(3) partial-hydrolysis condensate film formed on a base material using the application composition;

(4) thin film formed by curing the partial hydrolysis condensate simultaneously during the film formation; and

(5) electronic-electrical component, which has the thin film.

USE - For partial-hydrolysis condensate of composition used for forming thin film of electronic-electrical component (all claimed), and for battery film material, protective coat, fuel cell, photoresist, anti-reflective coating, light waveguide material, coating material, component for electrons, sealing agent, overcoat agent, transparent-film material, adhesive agent, fiber material, weather resistance coating material, water repellent, oil-repellent agent, moisture-proof coating agent and insulation film of electronic devices e.g. optoelectric transducer, diode, transistor, thermistor, varistor, thyristor, dynamic-random-access-memory (DRAM), static-random-access-memory (SRAM), mask read only memory, flash memory, microprocessor, monolithic-microwave integrated circuit and hybrid integrated circuit, multilayer wiring board e.g. printed wiring board and build-up circuit board, and display.

ADVANTAGE - The novel compound has low dielectric constant and provides thin film with excellent mechanical characteristics. The partial-hydrolysis condensate has excellent resistance with respect to plasma processing and washing process during manufacture of insulation film of electronic devices.

MANUAL CODE:

CPI: A12-E07; E05-E01C; L03-B01A1; L03-B01A2; L03-E04;  
L03-G02; L03-G04A; L03-H04E1; L04-C05; L04-C12; L04-E01;  
L04-E02; L04-E04  
EPI: U11-A06A; U11-A08A1; V04-X01B; X12-E02B

TECH

ORGANIC CHEMISTRY - Preferred Condensate: The partial-hydrolysis condensate is preferably obtained by carrying out partial-hydrolysis condensation of the novel compound in the presence of another silicon compound capable of carrying out hydrolysis condensation.

Preferred Film: The thin film contains hole in the film.

ABEX SPECIFIC COMPOUNDS - 16 examples for the fluorine-containing aromatic group-having compound of formula (1), such as compounds of formulae e.g. (4-1), (4-5), (4-9) and (4-16), are disclosed.

EXAMPLE - Decafluoro biphenyl (in g) (20.05) was dissolved in tetrahydrofuran (100 ml). The obtained solution was mixed with 1 mol/l lithium phenyl acetylide tetrahydrofuran solution (150 ml) and stirred violently. The stirring was continued for 8 hours, and the reaction solution was mixed with 0.1 N hydrochloric acid (2 l). The solution was precipitated, filtered and recovered. The recovered solid was water-washed and vacuum-dried at 50degreesC for 2 hours to obtain a crude product. The obtained crude product was subjected to sublimation purification at 180degreesC, to obtain fine yellow crystals (25) of 4,4'-bis(phenyl ethynyl) octafluorobiphenyl. The obtained crystal (7.32), triethoxy silane

(9.84), tetrahydrofuran (80) and 3% platinum divinyl tetrasiloxane complex toluene solution (20 mul), were mixed. The obtained mixture was maintained at 75degreesC for 8 hours by heating on an oil bath, and cooled to room temperature. Tetrahydrofuran and excess triethoxy silane were removed by evaporation, and oil-like substance (12.1) was obtained. The obtained oil-like substance was the novel compound having a structure (formula (12)). The obtained novel compound (4.13), propylene-glycol-monomethyl-ether acetate (41.3) and tetraethoxy silane (1.04) were mixed. The obtained mixture was mixed with 0.7 mass% maleic acid aqueous solution (0.81) and stirred violently at room temperature. The stirred mixture was heated at 60degreesC for 5 hours and concentrated to obtain partial-hydrolysis condensate solution composition (22.1). The solid content of the obtained composition was 15 mass%. The obtained composition was filtered and spin-coated on a silicon wafer. The coated composition was baked in nitrogen atmosphere, to form a thin film of thickness 500 nm. The dielectric constant and elasticity of the obtained film were 2.6 and 8 GPa, respectively.

AN.S DCR-1002240

SDCN RAGBO7

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AN.S DCR-1002241

SDCN RAGBO8

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L239 ANSWER 57 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-501305 [48] WPIX  
 DOC. NO. CPI: C2004-185847 [48]  
 TITLE: Production of alkoxysilane-based compound, comprises  
 subjecting alcohol and halogenated  
 organosilicon compound to dehydrohalogenation in presence  
 of diazabicycloundecene and diazabicyclononene and  
 another tertiary amine  
 DERWENT CLASS: E11  
 INVENTOR: KOIKE N; KOIKE N S D Z G; SAKANO Y; SAKANO Y S D Z G;  
 KOIKE S D Z; SAKANO S D Z  
 PATENT ASSIGNEE: (KOIK-I) KOIKE N; (SAKA-I) SAKANO Y; (SHIE-C) SHINETSU  
 CHEM CO LTD; (SHIE-C) SHINETSU CHEM IND CO LTD  
 COUNTRY COUNT: 33

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 1437357	A1	20040714	(200448)	*	EN	14[0]	<--
US 20040143129	A1	20040722	(200449)		EN		<--
JP 2004210753	A	20040729	(200450)		JA	11	<--
EP 1437357	B1	20060830	(200657)		EN		
US 7105693	B2	20060912	(200660)		EN		
DE 602004002117	E	20061012	(200670)		DE		
DE 602004002117	T2	20070201	(200712)		DE		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1437357 A1		<u>EP 2004-59 20040105</u>	
JP 2004210753 A		<u>JP 2003-2792 20030109</u>	
DE 602004002117 E		<u>DE 2004-602004002117</u>	
<u>20040105</u>			
DE 602004002117 E		<u>EP 2004-59 20040105</u>	
US 20040143129 A1		<u>US 2004-753340 20040109</u>	
US 7105693 B2		<u>US 2004-753340 20040109</u>	
DE 602004002117 T2		<u>DE 2004-602004002117</u>	
<u>20040105</u>			
DE 602004002117 T2		<u>EP 2004-59 20040105</u>	

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 602004002117 E	Based on	EP 1437357 A
DE 602004002117 T2	Based on	EP 1437357 A

PRIORITY APPLN. INFO: JP 2003-2792 20030109

## INT. PATENT CLASSIF.:

MAIN: C07F007-18  
 IPC ORIGINAL: C07F0011-00 [I,A]; C07F0011-00 [I,C]; C07F0007-00 [I,C];  
 C07F0007-00 [I,C]; C07F0007-18 [I,A]; C07F0007-18 [I,A]  
 IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-18 [I,A]

## BASIC ABSTRACT:

EP 1437357 A1 UPAB: 20050706

NOVELTY - Producing an alkoxysilane-based compound comprises subjecting an alcohol and a halogenated organosilicon compound to a dehydrohalogenation reaction in the presence of 1,8- diazabicyclo(5.4.0)undecene-7 (DBU) and 1,5- diazabicyclo(4.3.0)nonene-5 and another tertiary amine.

DETAILED DESCRIPTION - Producing an alkoxysilane-based compound of formula (III) comprises subjecting an alcohol of formula (I) and a halogenated organosilicon compound of formula (II) to a dehydrohalogenation reaction in the presence of (i) 1,8- diazabicyclo(5.4.0)undecene-7 and 1,5- diazabicyclo(4.3.0)nonene-5 and (ii) another tertiary amine.

(R1)3-a-C(H)a-OH (I)

Xn-Si-(R3)4-n (II)

((R1)3-a-C(H)a-O)n-Si-(R3)4-n (I)

R1, R3 = optionally substituted 1-20C monovalent hydrocarbon group which may contain an ether linkage oxygen atom, or R2O-;

R2 = optionally substituted 1-20C monovalent hydrocarbon group which may contain an ether linkage oxygen atom;

X = Cl, Br or I;

a = 0 or 1; and

n = 1, 2 or 3.

USE - For producing an alkoxysilane-based compound.

ADVANTAGE - By combining a small proportion of DBU with a conventionally used tertiary amine, the reaction rate is improved and the target compound is produced efficiently and with a high yield. MANUAL CODE: CPI:  
 E05-E01; E05-E02B; E05-E02C; E11-H  
 TECH

ORGANIC CHEMISTRY - Preferred Amount: A proportion of 1,8- diazabicyclo(5.4.0)undecene-7 and 1,5-diazabicyclo(4.3.0)nonene-5 within a combined total of components (i) and (ii) is 0.3-20 mole%. A quantity of the alcohol is 1.0-1.5 moles per 1 mole of halogen atoms within the halogenated organosilicon compound. A combined quantity of components

(i) and (ii) is 1.0-1.5 moles per 1 mole of halogen atoms within the halogenated organosilicon compound.

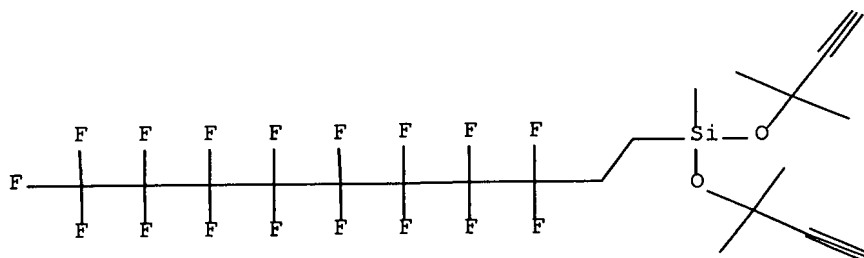
Preferred Compounds: The alcohol is a tertiary alcohol of formula HC-triple bond-C(CH<sub>3</sub>)<sub>2</sub>-OH. The halogenated organosilicon compound is of formula C<sub>4</sub>F<sub>9</sub>C<sub>2</sub>H<sub>4</sub>-Si(CH<sub>3</sub>)<sub>2</sub>-Cl or C<sub>8</sub>F<sub>17</sub>CH<sub>2</sub>CH<sub>2</sub>-Si(CH<sub>3</sub>)-(Cl)<sub>2</sub>. The tertiary amine is trialkylamine in which the 1-6C alkyl groups are bonded to a nitrogen atom, diethylphenylamine or pyridine. The trialkylamine is triethylamine, tripropylamine, tributylamine, trimethylamine, diethylmethylamine, or butyldimethylamine. Preferred Process: The alcohol and the halogenated organosilicon compound are subjected to dehydrohalogenation reaction in the presence of components (i) and (ii) and a hydrocarbon-based solvent with a boiling point of 40-180 degrees C.

ABEX EXAMPLE - A mixture of alcohol of formula HC-triple bond-C(CH<sub>3</sub>)<sub>2</sub>-OH (78 g), triethylamine (79 g), DBU (3.58 g) and toluene (78 g) was added dropwise with a dichlorosilane of formula C<sub>8</sub>F<sub>17</sub>CH<sub>2</sub>CH<sub>2</sub>-Si(CH<sub>3</sub>)-(Cl)<sub>2</sub> (200 g) over a period of 30 minutes at not more than 60 degrees C. Following completion of the dropwise addition, stirring was continued for another 30 minutes. Then, water (200 g) was added to the reaction system and the organic phase containing the target product was worked up to yield alkoxy silane of formula C<sub>8</sub>F<sub>17</sub>CH<sub>2</sub>CH<sub>2</sub>-Si(CH<sub>3</sub>)-(O-C(CH<sub>3</sub>)<sub>2</sub>-C-triple bond-CH)<sub>2</sub> (190 g, 99.9% purity, 81% yield).

AN.S DCR-268182

CN.S Bis-(1,1-dimethyl-prop-2-ynyloxy)-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-decyl)-methyl-silane

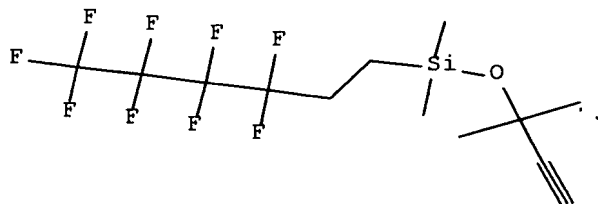
SDCN RA1FII



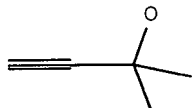
AN.S DCR-926809

CN.S (1,1-Dimethyl-prop-2-ynyloxy)-dimethyl-(3,3,4,4,5,5,6,6,6-nonafluoro-hexyl)-silane

SDCN RAERZS



AN.S DCR-1703  
 CN.P DIMETHYL ETHYNYL CARBINOL  
 CN.S 2-Methyl-but-3-yn-2-ol  
 SDCN R08294



L239 ANSWER 58 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-122219 [12] WPIX  
 DOC. NO. CPI: C2004-048938 [12]  
 TITLE: Silicon bis(enol ether) compound for synthesizing linear organosiloxane or polysiloxane, has specific structure  
 DERWENT CLASS: A26; A89; E11  
 INVENTOR: FRIEDRICH R  
 PATENT ASSIGNEE: (FRIE-I) FRIEDRICH R; (AUSU-C) UNIV AUSTRALIAN NAT  
 COUNTRY COUNT: 101

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003104304	A1	20031218	(200412)*	EN	39[0]	<--
US 20030232951	A1	20031218	(200412)	EN		<--
AU 2003229136	A1	20031222	(200445)	EN		<--

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003104304	A1	<u>WO 2003-AU708 20030606</u>	
US 20030232951	A1	<u>US 2002-167068 20020610</u>	
AU 2003229136	A1	<u>AU 2003-229136 20030606</u>	

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003229136	A1	WO 2003104304 A

PRIORITY APPLN. INFO: US 2002-167068 20020610

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-21 [I,A];  
 C08G0077-00 [I,C]; C08G0077-06 [I,A]; C08G0077-44 [I,A]

## BASIC ABSTRACT:

WO 2003104304 A1 UPAB: 20050528

NOVELTY - A silicon bis(enol ether) compound has structure (I).

DETAILED DESCRIPTION - A silicon bis(enol ether) compound has structure of formula (I).

Ra and Ra' = alkyl, aryl or aralkyl;

Rb and Rb' = CH<sub>2</sub>, CH-alkyl, CH-aryl or CH-aralkyl;

R1 and R2 = (un)substituted alkyl, aryl, aralkyl, hetero aryl or heteroaralkyl; and

m = at least 1.

Provided that when  $R_a = R_a' = CH_3$  and  $R_b = R_b' = CH_2$  and R1 is  $CH_3$ , then R2 is not  $CH_3$ .

INDEPENDENT CLAIMS are included for:

(i) method of synthesizing compound of formula (I), which involves reacting a dihalide of formula (IV) with a ketone of formula (V);

(ii) method of synthesizing linear organosiloxane of formula (III), which involves condensing one or more compounds of formula (I) with one or more silane diols of formula (II);

(iii) polysiloxane (III);

(iv) mixed polycondensate of formula (VI);

(v) method of synthesizing polysiloxane from an oligomeric molecule;

(vi) cyclic compound of formula (VII);

(vii) method of removing terminal OH groups from polysiloxane;

(viii) cured polycondensate; and

(ix) method of preparing cured polycondensate.

$R_a$ ,  $R_a'$ ,  $R_b$ ,  $R_b'$  and m = as defined above; and

R1 and R2 = alkyl, aryl, aralkyl, heteroaryl or heteroaralkyl groups, optionally substituted with one or more substituents chosen from fluorine and a reactive group.

R1-R4 = alkyl, aryl, aralkyl, heteroaryl or heteroaralkyl groups, optionally substituted with one or more substituents chosen from fluorine and substituents containing a functionalizable sub unit;

m = at least one; and

w = at least one.

R1 and R2 = group chosen from  $CF_3(CH_2)_2-$ ,  $CF_3(CF_2)_7(CH_2)_2-$ ,  $CH_3-$ ,  $H_2C=C(CH_3)COOH(CH_2)_3-$  or  $CH_3(CH_2)_7-$ ;

R5 and R6 =  $H_2C=CH-$  or H;

c and d = 1-4; and

v = at least 1.

R1-R4 = as defined above; and

n = at least 2.

USE - For synthesizing linear organosiloxane or polysiloxane, and for cured polycondensate (claimed) used as optical material.

ADVANTAGE - The silicon bis(enol ether) compound is reactable with silane diols to produce linear or cyclic polycondensate organosiloxanes of defined structure, without uncontrolled cross-linking. The polymers produced from the silicon bis(enol ether) compound, possess low viscosities, which aid in processing and in spin coating, and produces only ketones as by-product.

MANUAL CODE: CPI: A06-A00B; A09-A02; A12-L00L; E05-E01; E05-E02C

TECH

ORGANIC CHEMISTRY - Preferred Substituents: The substituent X in formula (IV), is chlorine. The ketone of formula (V) is acetone. The silane diol of formula (II) is one or more of compounds chosen from formulae (Ix, Iy) or fluorinated analogues.

The substituents R3 and R4 of formula (III), are heterocyclic rings chosen from group of formulae (IIe-IIj).

At least one of R1-R4 in formula (III) is chosen from group of formulae (IIk-IIm).

ABEX DEFINITIONS - Preferred Definitions: -  $R_a = R_a' = CH_3$ ; -  $R_b = R_b' = CH_2$ ; - R1 = methyl or phenyl; - R2 = group of formula (Ia); - one of R1 and R2 = group chosen from formulae (IIa-IIc). - L =  $-(CH_2)_q-$ ,  $-(OCH_2)_q-$  or  $-(OCH_2CH_2)_q-$ , preferably  $-(CH_2)_3-$ ; and - q = at least 1.

EXAMPLE - 8.65 diphenylsilanediol (DP), 9.69 g -vinylsilanediol (VDPS), 20.34 g 3,3,3-trifluoropropylemethyldiisopropenoxysilane and 20 ml anhydrous acetone were placed in a flask with an attached condenser, and 0.4 g of tin(II)ethylhexanoate was dissolved in 2 ml anhydrous acetone added to the stirred reaction mixture. After stirring for 24 hours at room

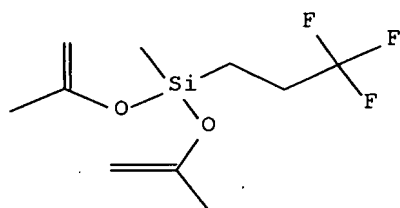
10/583,553

temperature, the solvent was driven off under reduced pressure and the crude resin dissolved in 100 ml ether. The catalyst and any colored by-product was removed by filtering through 10 g silica gel. The solvent was driven off under reduced pressure and the resin filtered through a 0.2 micron filter. - The physical properties were: Refractive index:  $n_D^{21}$  1.5170; Optical loss: 0.17 dB/cm at 1310 nm, 0.39 dB/cm at 1550 nm.

AN.S DCR-843820

CN.S 3,3,3-TRIFLUOROPROPYLMETHYLDIISOPROPENOXY-SILANE Bis-isopropenyloxy-methyl-(3,3,3-trifluoro-propyl)-silane

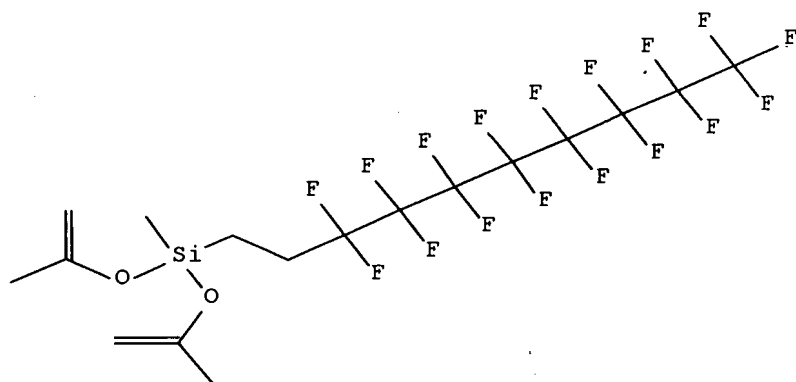
SDCN RAD21F



AN.S DCR-843827

CN.S (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptafluoro-decyl)-bis-isopropenyloxy-methyl-silane 1H, 1H, 2H, 2H-PERFLUORODECYLMETHYLDIISOPROPENOXY SILANE

SDCN RAD21N



L239 ANSWER 59 OF 62

ACCESSION NUMBER:

DOC. NO. CPI:

TITLE:

WPIX COPYRIGHT 2007

2000-499097 [44] WPIX

C2000-149753 [44]

THE THOMSON CORP on STN

Improved one-step preparation of alkyl(amino)dialkoxysilanes, comprises reacting alkoxysilane and alkylamino magnesium chloride in an aprotic solvent, removing the solvent, and recovering the

10/583,553

alkyl(amino)dialkoxysilane  
 DERWENT CLASS: A17; E11  
 INVENTOR: CHAWLA R; CHAWLA R R; LARSON G; LARSON G L; LARSON L  
 PATENT ASSIGNEE: (CHAW-I) CHAWLA R R; (DEGS-C) DEGUSSA AG; (LARS-I) LARSON  
 G L; (SIVE-N) SIVENTO INC; (DEGS-C) DEGUSSA CORP  
 COUNTRY COUNT: 24

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000042049	A1	20000720	(200044)*	EN	15[0]		<--
EP 1062220	A1	20001227	(200102)	EN			<--
CN 1292794	A	20010425	(200143)	ZH			<--
KR 2001052205	A	20010625	(200173)	KO			<--
JP 2002534527	W	20021015	(200282)	JA	15		<--
KR 371312	B	20030207	(200341)	KO			<--
JP 3569680	B2	20040922	(200462)	JA	11		<--
CA 2322648	C	20041130	(200480)	EN			<--
CN 1125074	C	20031022	(200554)#	ZH			<--
EP 1062220	B1	20060405	(200624)	EN			
DE 69930733	E	20060518	(200635)	DE			
DE 69930733	T2	20060831	(200660)	DE			

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000042049	A1	WO 1999-US947	19990113
CA 2322648	C	CA 1999-2322648	19990113
CN 1292794	A	CN 1999-803702	19990113
CN 1125074	C	CN 1999-803702	19990113
DE 69930733	E	DE 1999-630733	19990113
EP 1062220	A1	EP 1999-902311	19990113
EP 1062220	B1	EP 1999-902311	19990113
DE 69930733	E	EP 1999-902311	19990113
EP 1062220	A1	WO 1999-US947	19990113
CN 1292794	A	WO 1999-US947	19990113
KR 2001052205	A	WO 1999-US947	19990113
JP 2002534527	W	WO 1999-US947	19990113
KR 371312	B	WO 1999-US947	19990113
JP 3569680	B2	WO 1999-US947	19990113
CA 2322648	C	WO 1999-US947	19990113
EP 1062220	B1	WO 1999-US947	19990113
DE 69930733	E	WO 1999-US947	19990113
JP 2002534527	W	JP 2000-593616	19990113
JP 3569680	B2	JP 2000-593616	19990113
KR 2001052205	A	KR 2000-710035	20000908
KR 371312	B	KR 2000-710035	20000908
DE 69930733	T2	DE 1999-630733	19990113
DE 69930733	T2	EP 1999-902311	19990113
DE 69930733	T2	WO 1999-US947	19990113

## FILING DETAILS:

PATENT NO	KIND		PATENT NO	
DE 69930733	E	Based on	EP 1062220	A
JP 3569680	B2	Previous Publ	JP 2002534527	W
KR 371312	B	Previous Publ	KR 2001052205	A



EP 1062220	A1	Based on	WO 2000042049	A
JP 2002534527	W	Based on	WO 2000042049	A
KR 371312	B	Based on	WO 2000042049	A
JP 3569680	B2	Based on	WO 2000042049	A
CA 2322648	C	Based on	WO 2000042049	A
EP 1062220	B1	Based on	WO 2000042049	A
DE 69930733	E	Based on	WO 2000042049	A
DE 69930733	T2	Based on	EP 1062220	A
DE 69930733	T2	Based on	WO 2000042049	A

PRIORITY APPLN. INFO: WO 1999-US947 19990113  
CN 1999-803702 19990113

## INT. PATENT CLASSIF.:

MAIN: C07F007-10; C07F007-18  
 IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-00 [I,C]; C07F0007-00 [I,C];  
 C07F0007-00 [I,C]; C07F0007-10 [I,A]; C07F0007-10 [I,A];  
 C07F0007-18 [I,A]; C07F0007-18 [I,A]  
 IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-10 [I,A]; C07F0007-18 [I,A]

## BASIC ABSTRACT:

WO 2000042049 A1 UPAB: 20060116

NOVELTY - An improved one-step process starting from alkylalkoxysilanes for producing alkyl(amino)dialkoxysilanes of high purity and in yields greater than those attained by prior art.

DETAILED DESCRIPTION - The preparation of alkyl(amino)dialkoxysilanes of formula  $\text{RSi}(\text{r1R2N})(\text{OR3})_2$  (I) is improved. The improved preparation follows reaction (III). The process comprises:

(i) mixing approximately stoichiometric amounts of  $\text{RMgX}$  and  $\text{R1R2NH}$  in an anhydrous aprotic solvent;

(ii) reacting the alkylmagnesium halide and amino compound as shown in (II);

(iii) completing the reaction (II) by the timed addition of the alkyltrialkoxysilane;

(iv) removing the solvent by distillation; and

(v) recovering the alkyl(amino)dialkoxysilane (I) having a purity in excess of 95%.

$\text{RMgX} + \text{R1R2NH} \rightarrow \text{R1R2NMgX} + \text{RH}$  (II);  $\text{RnSi}(\text{OR3})_3 + \text{R1R2NMgX} \rightarrow \text{RSi}(\text{R1R2N})(\text{OR3})_2 + \text{Mg}(\text{OR3})\text{X}$  (III);

$\text{R} = 1 - 20\text{C}$  straight or branched arylalkyl or aryl radical;

$\text{R1}, \text{R2} = 4 - 6\text{C}$  alkyl radicals, one of them can be H;

$\text{R3} = 1 - 6\text{C}$  straight or branched alkyl, arylalkyl, aryl;

$\text{X} = \text{Cl}, \text{Br}, \text{I}$

USE - Used as catalysts in the alpha-polymerization reaction to produce highly stereoregular **polyolefins**, e.g. alpha-olefin homopolymers and copolymers.

ADVANTAGE - The process is practical and economical for commercial production of the desired products by minimizing the production of unwanted by-products and the concomitant separation and activity problems.

MANUAL CODE: CPI: A02-A07; A04-G01A; E05-E01; E05-E02D

Member(0002)

ABEQ EP 1062220 A1 UPAB 20060116

NOVELTY - An improved one-step process starting from alkylalkoxysilanes for producing alkyl(amino)dialkoxysilanes of high purity and in yields greater than those attained by prior art.

DETAILED DESCRIPTION - The preparation of alkyl(amino)dialkoxysilanes of formula  $\text{RSi}(\text{r1R2N})(\text{OR3})_2$  (I) is improved. The improved preparation follows reaction (III). The process comprises:

(i) mixing approximately stoichiometric amounts of  $\text{RMgX}$  and  $\text{R1R2NH}$  in an anhydrous aprotic solvent;

(ii) reacting the alkylmagnesium halide and amino compound as shown

in (II);

(iii) completing the reaction (II) by the timed addition of the alkyltrialkoxysilane;

(iv) removing the solvent by distillation; and

(v) recovering the alkyl(amino)dialkoxysilane (I) having a purity in excess of 95%.

$\text{RMgX} + \text{R}_1\text{R}_2\text{NH} \rightarrow \text{R}_1\text{R}_2\text{NMgX} + \text{RH}$  (II);  $\text{R}_n\text{Si}(\text{OR}_3)_3 + \text{R}_1\text{R}_2\text{NMgX} \rightarrow \text{RSi}(\text{R}_1\text{R}_2\text{N})(\text{OR}_3)_2 + \text{Mg}(\text{OR}_3)\text{X}$  (III);

R = 1 - 20C straight or branched arylalkyl or aryl radical;

R<sub>1</sub>, R<sub>2</sub> = 4 - 6C alkyl radicals, one of them can be H;

R<sub>3</sub> = 1 - 6C straight or branched alkyl, arylalkyl, aryl;

X = Cl, Br, I

USE - Used as catalysts in the alpha-polymerization reaction to produce highly stereoregular polyolefins, e.g. alpha-olefin homopolymers and copolymers.

ADVANTAGE - The process is practical and economical for commercial production of the desired products by minimizing the production of unwanted by-products and the concomitant separation and activity problems.

Member(0003)

ABEQ CN 1292794 A UPAB 20060116

NOVELTY - An improved one-step process starting from alkylalkoxysilanes for producing alkyl(amino)dialkoxysilanes of high purity and in yields greater than those attained by prior art.

DETAILED DESCRIPTION - The preparation of alkyl(amino)dialkoxysilanes of formula  $\text{RSi}(\text{r}_1\text{R}_2\text{N})(\text{OR}_3)_2$  (I) is improved. The improved preparation follows reaction (III). The process comprises:

(i) mixing approximately stoichiometric amounts of  $\text{RMgX}$  and  $\text{R}_1\text{R}_2\text{NH}$  in an anhydrous aprotic solvent;

(ii) reacting the alkylmagnesium halide and amino compound as shown in (II);

(iii) completing the reaction (II) by the timed addition of the alkyltrialkoxysilane;

(iv) removing the solvent by distillation; and

(v) recovering the alkyl(amino)dialkoxysilane (I) having a purity in excess of 95%.

$\text{RMgX} + \text{R}_1\text{R}_2\text{NH} \rightarrow \text{R}_1\text{R}_2\text{NMgX} + \text{RH}$  (II);  $\text{R}_n\text{Si}(\text{OR}_3)_3 + \text{R}_1\text{R}_2\text{NMgX} \rightarrow \text{RSi}(\text{R}_1\text{R}_2\text{N})(\text{OR}_3)_2 + \text{Mg}(\text{OR}_3)\text{X}$  (III);

R = 1 - 20C straight or branched arylalkyl or aryl radical;

R<sub>1</sub>, R<sub>2</sub> = 4 - 6C alkyl radicals, one of them can be H;

R<sub>3</sub> = 1 - 6C straight or branched alkyl, arylalkyl, aryl;

X = Cl, Br, I

USE - Used as catalysts in the alpha-polymerization reaction to produce highly stereoregular polyolefins, e.g. alpha-olefin homopolymers and copolymers.

ADVANTAGE - The process is practical and economical for commercial production of the desired products by minimizing the production of unwanted by-products and the concomitant separation and activity problems.

TECH

ORGANIC CHEMISTRY - Preferred Solvent: The solvent is tetrahydrofuran. Preferred Conditions: The reactions (II) and (III) are conducted at 25 - 75 degreesC.

Preferred Yield: The yield of alkyl(amino)dialkoxysilane is at least 79% of the theoretical yield for reaction (III).

Preferred Components: The amino constituent is a piperidino group.

Preferred Process: The aprotic solvent is recovered for re-use in the process. The reaction products of reaction (II) are refluxed to remove the by-product RH in the form of a gas. The reaction is conducted in a

nitrogen atmosphere.

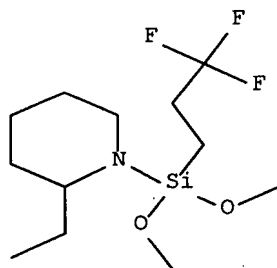
ABEX DEFINITIONS - X = Cl; R3 = methyl, ethyl radicals.

EXAMPLE - Tert-butylamine (75 g) was slowly added to a flask containing isopropylmagnesium chloride (1 mol) in tetrahydrofuran (THF) (500 ml). The reaction immediately evolved propane gas. After completion of the addition, the contents were refluxed for 30 minutes to complete the evolution of the gas. The reaction mixture was cooled to room temperature and methyltrimethoxysilane (135 g, 1 mol) was added to the stirred reaction mixture over a period of 1 hour. The methyl(t-butylamino)dimethoxysilane was filtered under nitrogen atmosphere from the magnesium methoxychloride and the salt cake washed with diethyl ether to obtain residual methyl(t-butylamino)dimethoxysilane. The solvent was distilled to a pot temperature of 90 degreesC and the residue was distilled under reduced pressure to yield 138 g of methyl(t-butylamino)dimethoxysilane as a colorless oil (purity greater than 98%); b.pt. 107 degreesC/135 mm. The yield was 82% of theoretical.

AN.S DCR-306039

CN.S 1-[Dimethoxy-(3,3,3-trifluoro-propyl)-silanyl]-2-ethyl-piperidine

SDCN RA272E



L239 ANSWER 60 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2000-197177 [18] WPIX  
 DOC. NO. CPI: C2000-061242 [18]  
 TITLE: New organosilicon compounds containing acetylenic and perfluoroalkyl or perfluoropolyether groups used to control hydrosilylation reactions e.g. in crosslinking of silicone rubber  
 DERWENT CLASS: A26; E11  
 INVENTOR: FUKUDA K; FUKUDA K S E M R C; KINOSHITA H; KISHITA H; KISHITA H S E M R C  
 PATENT ASSIGNEE: (SHIE-C) SHINETSU CHEM CO LTD; (SHIE-C) SHINETSU CHEM IND CO LTD  
 COUNTRY COUNT: 26

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 982312	A1	20000301	(200018)*	EN	10[1]		<--
JP 2000053685	A	20000222	(200020)	JA	7		<--
US 6114562	A	20000905	(200044)	EN			<--

EP 982312	B1 20030423 (200329)	EN	<--
DE 69907094	E 20030528 (200343)	DE	<--
JP 3646771	B2 20050511 (200532)	JA 8	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 982312	A1	<u>EP 1999-306190</u>	<u>19990804</u>
JP 2000053685	A	<u>JP 1998-232252</u>	<u>19980804</u>
JP 3646771	B2	<u>JP 1998-232252</u>	<u>19980804</u>
DE 69907094	E	<u>DE 1999-69907094</u>	<u>19990804</u>
DE 69907094	E	<u>EP 1999-306190</u>	<u>19990804</u>
US 6114562	A	<u>US 1999-366788</u>	<u>19990804</u>

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69907094	E	EP 982312 A
JP 3646771	B2	JP 2000053685 A

PRIORITY APPLN. INFO: JP 1998-232252 19980804

INT. PATENT CLASSIF.:

MAIN: C07F007-18

IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-18 [I,A]

BASIC ABSTRACT:

EP 982312 A1 UPAB: 20060116

NOVELTY - Organosilicon compounds of formula (I) containing both (i) perfluoroalkyl or perfluoropolyether groups and (ii) acetylenic groups, are new.

DETAILED DESCRIPTION - Organosilicon compounds of formula (I) are new.  
 Rf = monovalent perfluoroalkyl or perfluoropolyether;  
 R1 = divalent organic group;  
 R2 = monovalent hydrocarbon group;  
 R3 = divalent hydrocarbon group; and  
 a = 0, 1 or 2.

An INDEPENDENT CLAIM is also included for the preparation of (I).

USE - (I) are useful as agents for controlling hydrosilylation reactions e.g. in the crosslinking of silicone rubber compositions. They are effective for controlling addition reactions between -SiH groups and -CH=CH2 groups (in the presence of a platinum catalyst).

ADVANTAGE - (I) are fully compatible with fluorosilicones and perfluoropolymers so that they do not separate out during use. MANUAL CODE: CPI: A06-A00B; A08-C06; E05-E02

Member(0002)

ABEQ JP 2000053685 A UPAB 20060116

NOVELTY - Organosilicon compounds of formula (I) containing both (i) perfluoroalkyl or perfluoropolyether groups and (ii) acetylenic groups, are new.

DETAILED DESCRIPTION - Organosilicon compounds of formula (I) are new.

Rf = monovalent perfluoroalkyl or perfluoropolyether;  
 R1 = divalent organic group;  
 R2 = monovalent hydrocarbon group;  
 R3 = divalent hydrocarbon group; and  
 a = 0, 1 or 2.

An INDEPENDENT CLAIM is also included for the preparation of (I).

USE - (I) are useful as agents for controlling hydrosilylation

reactions e.g. in the crosslinking of silicone rubber compositions. They are effective for controlling addition reactions between  $\text{-SiH}$  groups and  $\text{-CH=CH}_2$  groups (in the presence of a platinum catalyst).

ADVANTAGE - (I) are fully compatible with fluorosilicones and perfluoropolymers so that they do not separate out during use.

Member(0003)

ABEQ US 6114562 A UPAB 20060116

NOVELTY - Organosilicon compounds of formula (I) containing both (i) perfluoroalkyl or perfluoropolyether groups and (ii) acetylenic groups, are new.

DETAILED DESCRIPTION - Organosilicon compounds of formula (I) are new.

$R_f$  = monovalent perfluoroalkyl or perfluoropolyether;

$R_1$  = divalent organic group;

$R_2$  = monovalent hydrocarbon group;

$R_3$  = divalent hydrocarbon group; and

$a = 0, 1$  or  $2$ .

An INDEPENDENT CLAIM is also included for the preparation of (I).

USE - (I) are useful as agents for controlling hydrosilylation reactions e.g. in the crosslinking of silicone rubber compositions. They are effective for controlling addition reactions between  $\text{-SiH}$  groups and  $\text{-CH=CH}_2$  groups (in the presence of a platinum catalyst).

ADVANTAGE - (I) are fully compatible with fluorosilicones and perfluoropolymers so that they do not separate out during use.

TECH

ORGANIC CHEMISTRY - Preparation: (I) are prepared by reacting fluorinated chlorosilane (II) with ethynyl group-bearing alcohol (III).

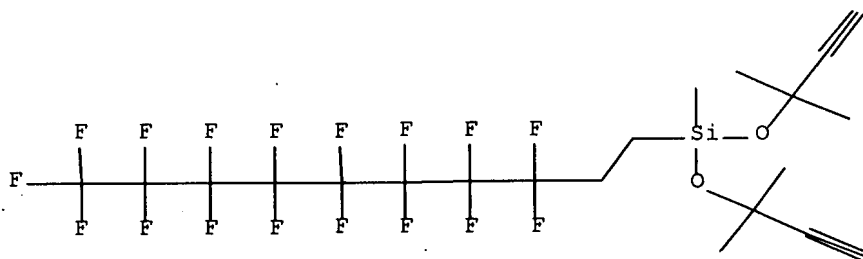
ABEX SPECIFIC COMPOUNDS - Two compounds (I) are disclosed e.g. (Ia).

EXAMPLE - A mixture of ethynyl group-bearing alcohol (IV) (19.5 g) and urea (19.5 g) was heated to 50 degreesC under nitrogen. Fluorinated dichlorosilane (V) (50.0 g) was added dropwise and the mixture then stirred at 60 degreesC for 16 hours. - The reaction mixture was cooled and the lower layer separated and treated with propylene oxide (0.3 g) for neutralization. The mixture was stirred for 1 hour at 40 degreesC and then stripped at 100 degreesC and 1 mm Hg pressure. The product was cooled and filtered under pressure (to remove salt) and the filtrate vacuum distilled. 34.4 g (59%) of (Ia) (b.pt. 115 degreesC/ 1 mm Hg) were recovered.

AN.S DCR-268182

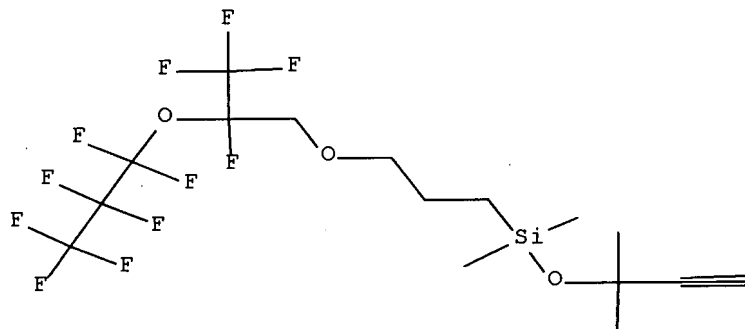
CN.S Bis-(1,1-dimethyl-prop-2-ynyloxy)-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-decyl)-methyl-silane

SDCN RAlFII



AN.S DCR-268183

CN.S (1,1-Dimethyl-prop-2-ynyloxy)-dimethyl-[3-(2,3,3,3-tetrafluoro-2-heptafluoropropoxy-propoxy)-propyl]-silane  
 SDCN RAlFIJ



=&gt; d ibib ab hitstr 61-62

YOU HAVE REQUESTED DATA FROM FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L239 ANSWER 61 OF 62 USPATFULL on STN

ACCESSION NUMBER: 2000:117197 USPATFULL Full-text

TITLE: Ether-stabilized organosilane compositions and methods for using the same

INVENTOR(S): Elfersy, Jacques E., Atlanta, GA, United States  
 Berkner, Joachim, Smyrna, GA, United States  
 Moses, Timothy C., Atlanta, GA, United States

PATENT ASSIGNEE(S): Bioshield Technologies, Inc., Norcross, GA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6113815		20000905	<--
APPLICATION INFO.:	US 1998-116636		19980716 (9)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1997-53155P	19970718 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	McKane, Joseph		
ASSISTANT EXAMINER:	Oswecki, Jane C.		
LEGAL REPRESENTATIVE:	Saliwanchik, Lloyd & Saliwanchik		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2227		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The composition formed by mixing an organosilane with an ether. Water-stabilized organosilane compounds. A water stable composition made from the ether and organosilane composition and water. A method of treating a substrate by mixing or contacting the substrate with the product, compound, or composition of this invention for a period of time sufficient for treatment of the substrate. A treated substrate having adhered thereto the product, compound, or composition of this invention. A method of dyeing and treating a substrate. A method of antimicrobially treating a food article. A method of antimicrobially coating a fluid container. A method of antimicrobially coating a latex medical article.

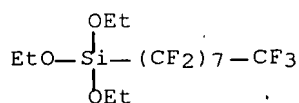
IT 96305-13-4 98046-76-5 110338-17-5

<u>154380-29-7</u>	<u>199524-07-7</u>	<u>199524-08-8</u>
<u>199524-09-9</u>	<u>199524-10-2</u>	<u>199524-17-9</u>
<u>199524-18-0</u>	<u>199524-19-1</u>	<u>199524-20-4</u>
<u>199524-21-5</u>	<u>199524-22-6</u>	<u>199524-23-7</u>
<u>199524-24-8</u>	<u>199524-25-9</u>	<u>199524-26-0</u>
<u>199524-27-1</u>	<u>199524-28-2</u>	

(water-stabilized organosilane compds. and their use as antimicrobial agents)

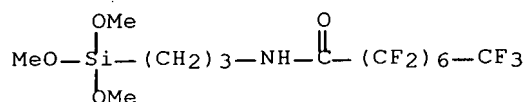
RN 96305-13-4 USPATFULL

CN Silane, triethoxy(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)-(CA INDEX NAME)



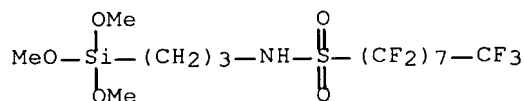
RN 98046-76-5 USPATFULL

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentafluoro-N-[3-(trimethoxysilyl)propyl]-(9CI) (CA INDEX NAME)



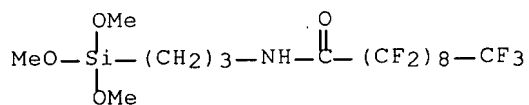
RN 110338-17-5 USPATFULL

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[3-(trimethoxysilyl)propyl]-(9CI) (CA INDEX NAME)



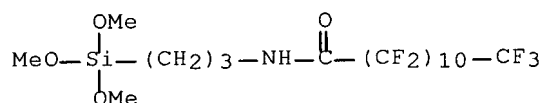
RN 154380-29-7 USPATFULL

CN Decanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



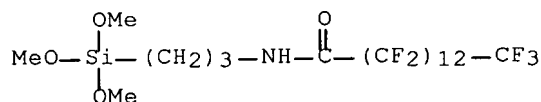
RN 199524-07-7 USPATFULL

CN Dodecanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-tricosafuoro-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



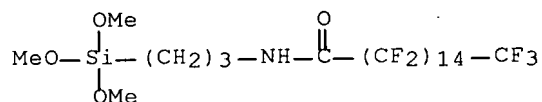
RN 199524-08-8 USPATFULL

CN Tetradecanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-heptacosafuoro-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



RN 199524-09-9 USPATFULL

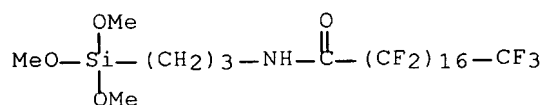
CN Hexadecanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-hentriacontafluoro-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



RN 199524-10-2 USPATFULL

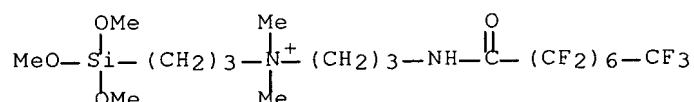
CN Octadecanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluoro-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)





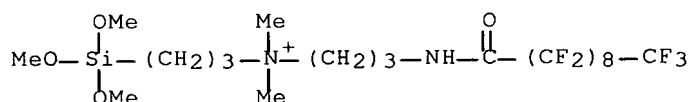
RN 199524-17-9 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



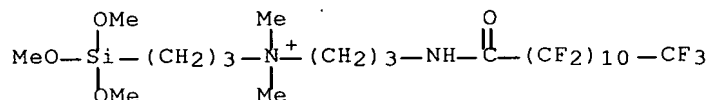
RN 199524-18-0 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-1-oxododecyl)amino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



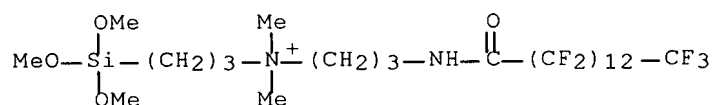
RN 199524-19-1 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-tricosafuoro-1-oxododecyl)amino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



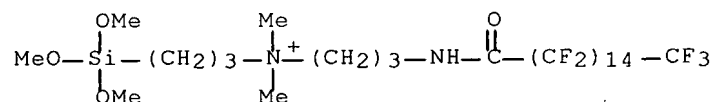
RN 199524-20-4 USPATFULL

CN 1-Propanaminium, 3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-heptacosafuoro-1-oxotetradecyl)amino]-N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



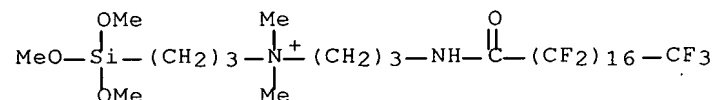
RN 199524-21-5 USPATFULL

CN 1-Propanaminium, 3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-hentriacontafluoro-1-oxohexadecyl) amino]-N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



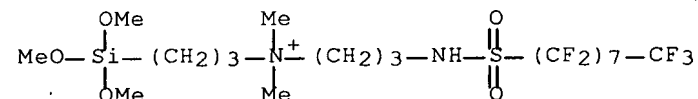
RN 199524-22-6 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluoro-1-oxooctadecyl) amino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



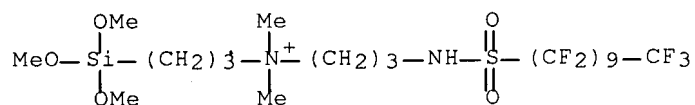
RN 199524-23-7 USPATFULL

CN 1-Propanaminium, 3-[[heptadecafluorooctyl)sulfonyl] amino]-N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



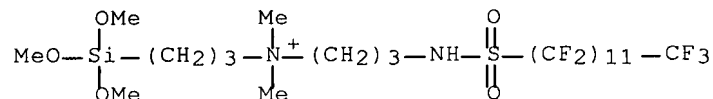
RN 199524-24-8 USPATFULL

CN 1-Propanaminium, 3-[[heneicosafluorodecyl)sulfonyl] amino]-N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



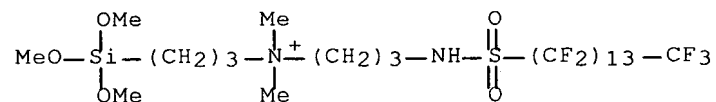
RN 199524-25-9 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[[ (pentacosafuorododecyl) sulfonyl] amin  
o]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



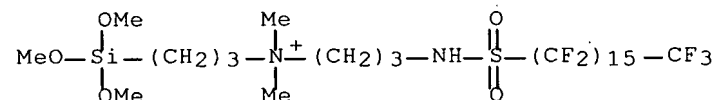
RN 199524-26-0 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[[ (nonacosafuorotetradecyl) sulfonyl] am  
ino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



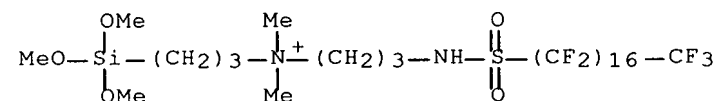
RN 199524-27-1 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]-3-  
[[ (tritriacontafluorohexadecyl) sulfonyl] amino]- (9CI) (CA INDEX NAME)



RN 199524-28-2 USPATFULL

CN 1-Propanaminium, N,N-dimethyl-N-[3-[[ (pentatriacontafluoroheptadecyl) sulfo  
nyl] amino]propyl]-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



L239 ANSWER 62 OF 62 USPATFULL on STN

ACCESSION NUMBER: 1999:19386 USPATFULL Full-text

TITLE: Process for preparing fluoroalkyl-containing organosilicon compounds, and their use

INVENTOR(S): Jenker, Peter, Rheinfelden, Germany, Federal Republic of  
 Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of  
 Horn, Michael, Rheinfelden, Germany, Federal Republic of  
 Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of  
 Standke, Burkhard, Loerrach, Germany, Federal Republic of

PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5869728		19990209	<--
APPLICATION INFO.:	US 1997-955290		19971021 (8)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 1996-19644561	19961026	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Shaver, Paul F.		
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	513		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

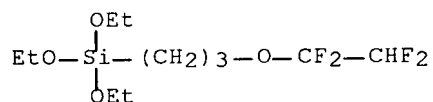
AB Fluoroalkyl organosilicon compounds are prepared by reacting fluoroolefins with organosilicon compounds that contain at least one H--Si group, in the presence of a Pt(0) complex catalyst. Further, fluoroalkylalkoxy organosilicon compounds are prepared by esterifying fluoroalkyl organosilicon compounds. The process proceeds uniformly under mild conditions with high yields and selectivities.

IT **94232-72-1P**

(preparation of)

RN 94232-72-1 USPATFULL

CN Silane, triethoxy[3-(1,1,2,2-tetrafluoroethoxy)propyl]- (9CI) (CA INDEX NAME)



=&gt; d que nos 1235

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L10      QUE ABB=ON PLU=ON JUST, E?/AU
L11      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L12      QUE ABB=ON PLU=ON JENKNER, P?/AU
L13      QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
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L60      QUE ABB=ON PLU=ON ESTER?
L63 (    1) SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-583553/APPS
L64      SEL PLU=ON L63 1- RN :          9 TERMS
L65      9 SEA FILE=REGISTRY ABB=ON PLU=ON L64
L66      1 SEA FILE=REGISTRY ABB=ON PLU=ON L65 AND "C8 H4 CL3 F13
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L67      1 SEA FILE=REGISTRY ABB=ON PLU=ON L65 AND PT/ELS
L68      3 SEA FILE=REGISTRY ABB=ON PLU=ON L65 AND SI/ELS
L69      2 SEA FILE=REGISTRY ABB=ON PLU=ON L68 NOT F/ELS
L71      1 SEA FILE=REGISTRY ABB=ON PLU=ON L69 NOT L67
L72      6 SEA FILE=REGISTRY ABB=ON PLU=ON L65 NOT (L66 OR L67 OR L71)
L73      QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O
        R ?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKA
        NOL?
L74      STR
L76      2634 SEA FILE=REGISTRY SSS FUL L74
L80      1138 SEA FILE=HCAPLUS ABB=ON PLU=ON L76 (L) (PREP+NT)/RL
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L82      QUE ABB=ON PLU=ON ALCOHOLS+PFT,OLD,NEW/CT
L137     41 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 (L) L73
L138     3 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND (L82 (L) L60)
L139     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND (L81 (L) L73)
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L141     49 SEA FILE=HCAPLUS ABB=ON PLU=ON (L137 OR L138 OR L139 OR
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L144     541 SEA FILE=HCAPLUS ABB=ON PLU=ON L143 (L) (PREP+NT)/RL
L145     22 SEA FILE=HCAPLUS ABB=ON PLU=ON L144 (L) L73
L146     29 SEA FILE=HCAPLUS ABB=ON PLU=ON L141 AND L144
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L231     469 SEA FILE=HCAPLUS ABB=ON PLU=ON L230 (L) (RACT+NT)/RL
L232     27 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L231
L233     6 SEA FILE=HCAPLUS ABB=ON PLU=ON L232 AND (L73 OR L82)
L234     0 SEA FILE=HCAPLUS ABB=ON PLU=ON L233 AND (L10 OR L11 OR L12
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L235     1 SEA FILE=HCAPLUS ABB=ON PLU=ON L148 OR L234

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=&gt; d que nos 1189

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L10      QUE ABB=ON PLU=ON JUST, E?/AU
L11      QUE ABB=ON PLU=ON GIESSLER, S?/AU
L12      QUE ABB=ON PLU=ON JENKNER, P?/AU
L13      QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L32      QUE ABB=ON PLU=ON C07F0007-14/IPC
L74      STR
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L157     STR
L159     STR
L160     294 SEA FILE=CASREACT SSS FUL L159 ( 2129 REACTIONS)

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L162 47 SEA FILE=CASREACT SSS FUL L157 ( 124 REACTIONS)  
 L163 6 SEA FILE=CASREACT ABB=ON PLU=ON L160 AND L162  
 L164 0 SEA FILE=CASREACT ABB=ON PLU=ON L162 AND L32  
 L165 6 SEA FILE=CASREACT ABB=ON PLU=ON (L163 OR L164)  
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 L167( 294)SEA FILE=CASREACT SSS FUL L166 ( 2129 REACTIONS)  
 L168 STR  
 L169( 1)SEA FILE=CASREACT SUB=L167 SSS FUL L168 ( 5 REACTIONS)  
 L170 STR  
 L171( 2)SEA FILE=CASREACT SUB=L167 SSS FUL L170 ( 6 REACTIONS)  
 L172( 29)SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (PT?/BI,AB OR  
 ?PLATIN?/BI,AB OR HPT?/BI,AB)  
 L173( 29)SEA FILE=CASREACT ABB=ON PLU=ON L172 OR L169 OR L171  
 L174( 7)SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (?H2PT?/BI,AB)  
 L175( 31)SEA FILE=CASREACT ABB=ON PLU=ON L174 OR L173  
 L176 QUE ABB=ON PLU=ON JUST, E?/AU  
 L177 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L178 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L179 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L180 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY  
 <2005 OR REVIEW/DT  
 L181( 2)SEA FILE=CASREACT ABB=ON PLU=ON L175 AND (L176 OR L177 OR  
 L178 OR L179)  
 L182( 29)SEA FILE=CASREACT ABB=ON PLU=ON L175 NOT L181  
 L183 26 SEA FILE=CASREACT ABB=ON PLU=ON L182 AND L180  
 L184 3 SEA FILE=CASREACT ABB=ON PLU=ON L183 AND L162  
 L186 93 SEA FILE=CASREACT ABB=ON PLU=ON L76/PRO  
 L187 19 SEA FILE=CASREACT ABB=ON PLU=ON L186 AND (L160 OR L183 OR  
 L32)  
 L188 19 SEA FILE=CASREACT ABB=ON PLU=ON L165 OR L184 OR L187  
 L189 0 SEA FILE=CASREACT ABB=ON PLU=ON L188 AND (L10 OR L11 OR L12  
 OR L13)

=> d que nos 1194

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L157 STR  
 L193 6 SEA FILE=CHEMINFORMRX SSS FUL L157 ( 20 REACTIONS)  
 L194 0 SEA FILE=CHEMINFORMRX ABB=ON PLU=ON L193 AND (L10 OR L11 OR  
 L12 OR L13)

=> d que nos 1202

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L73 QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O  
 R ?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKA  
 NOL?  
 L200 120 SEA FILE=BABS ABB=ON PLU=ON (6475032/AN OR 5772354/AN OR  
 5998956/AN OR 5715455/AN OR 6149153/AN OR 5929836/AN OR  
 6542249/AN OR 5536535/AN OR 5588619/AN OR 5852591/AN OR  
 5994480/AN OR 6410460/AN OR 5899529/AN OR 5966319/AN OR  
 5999654/AN OR 6172860/AN OR 5598822/AN OR 5750997/AN OR  
 5760059/AN OR 5809983/AN OR 5945497/AN OR 5951532/AN OR  
 6016960/AN OR 6055145/AN OR 6175111/AN OR 6254602/AN OR

6272724/AN OR 6440727/AN OR 6569911/AN OR 6624021/AN OR  
 5727676/AN OR 5811230/AN OR 5840979/AN OR 6614959/AN OR  
 5575124/AN OR 5598040/AN OR 5652310/AN OR 5702103/AN OR  
 5725153/AN OR 5728440/AN OR 5767079/AN OR 5840265/AN OR  
 5854579/AN OR 5864192/AN OR 5870291/AN OR 5964875/AN OR  
 6016604/AN OR 6080965/AN OR 6122422/AN OR 6148237/AN OR  
 6323566/AN OR 6409117/AN OR 6490177/AN OR 6502628/AN OR  
 6604739/AN OR 6622674/AN OR 5511018/AN OR 5533759/AN OR  
 5598975/AN OR 5610600/AN OR 5615311/AN OR 5647315/AN OR  
 5650749/AN OR 5706569/AN OR 5707064/AN OR 5743523/AN OR  
 5744550/AN OR 5760436/AN OR 5777666/AN OR 5793899/AN OR  
 5807117/AN OR 5813636/AN OR 5840261/AN OR 5845889/AN OR  
 5856365/AN OR 5872558/AN OR 5875308/AN OR 5875843/AN OR  
 5876081/AN OR 5887526/AN OR 5898030/AN OR 5911332/AN OR  
 5912418/AN OR 5917251/AN OR 5961001/AN OR 5999340/AN OR  
 6006932/AN OR 6025617/AN OR 6048370/AN OR 6066853/AN OR  
 6074491/AN OR 6074492/AN OR 6075606/AN OR 6121489/AN OR  
 6229467/AN OR 6234143/AN OR 6242981/AN OR 6258910/AN OR  
 6284025/AN OR 6309327/AN OR 6331982/AN OR 6336180/AN OR  
 6357598/AN OR 6357872/AN OR 6360592/AN OR 6417937/AN OR  
 6421925/AN OR 6447328/AN OR 6462570/AN OR 6463618/AN OR  
 6483661/AN OR 6489943/AN OR 6508367/AN OR 6515954/AN OR  
 6535085/AN OR 6561393/AN OR 6563403/AN OR 6592564/AN OR  
 6595473/AN OR 6604494/AN)

L201 15 SEA FILE=BABS ABB=ON PLU=ON L200 AND L73  
 L202 0 SEA FILE=BABS ABB=ON PLU=ON L201 AND (L10 OR L11 OR L12 OR  
 L13)

=> d que nos 1221

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L32 QUE ABB=ON PLU=ON C07F0007-14/IPC  
 L73 QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? O  
 R ?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKA  
 NOL?  
 L74 STR  
 L208 189 SEA FILE=WPIX SSS FUL L74  
 L209 259 SEA FILE=WPIX ABB=ON PLU=ON (RAAFCZ/DCN OR RAAJJS/DCN OR  
 RAAJ JV/DCN OR RAAJ JX/DCN OR RAATNQ/DCN OR RAATNS/DCN OR  
 RAAVHW/DCN OR RAAVHX/DCN OR RAAVHY/DCN OR RAAVHZ/DCN OR  
 RAA084/DCN OR RAA085/DCN OR RAA086/DCN OR RAA087/DCN OR  
 RABBOM/DCN OR RABBON/DCN OR RABBOO/DCN OR RABBOP/DCN OR  
 RABBOQ/DCN OR RABBOR/DCN OR RABBOS/DCN OR RABBOT/DCN OR  
 RABSDL/DCN OR RABS1Q/DCN OR RACAM1/DCN OR RACKP5/DCN OR  
 RACKP7/DCN OR RACYKW/DCN OR RACYKX/DCN OR RADGO2/DCN OR  
 RADGO5/DCN OR RADLCJ/DCN OR RAD02W/DCN OR RAD21F/DCN OR  
 RAD21N/DCN OR RAD4AM/DCN OR RAD5N4/DCN OR RAEF NJ/DCN OR  
 RAEFNM/DCN OR RAERZS/DCN OR RAEXYM/DCN OR RAEXYN/DCN OR  
 RAEXYO/DCN OR RAEXYP/DCN OR RAEXYM/DCN OR RAEXYO/DCN OR  
 RAEXYP/DCN OR RAEXYQ/DCN OR RAFDNP/DCN OR RAFE61/DCN OR  
 RAFFW2/DCN OR RAFFW3/DCN OR RAFFDC/DCN OR RAFFDF/DCN OR  
 RAF39M/DCN OR RAGBO7/DCN OR RAGBO8/DCN OR RAGTM1/DCN OR  
 RAG5ZW/DCN OR RAG6EX/DCN OR RAG6F0/DCN OR RAG6F1/DCN OR  
 RAHTJ1/DCN OR RAH3UB/DCN OR RAH3UC/DCN OR RAIDFE/DCN OR  
 RAIDF4/DCN OR RAIFNX/DCN OR RAINF6/DCN OR RAIVNE/DCN OR  
 RAJULZ/DCN OR RAJ41Y/DCN OR RAKKQ9/DCN OR RALDJJ/DCN OR  
 RALR2C/DCN OR RALR2D/DCN OR RALR2E/DCN OR RALR2F/DCN OR  
 RALR2G/DCN OR RALR2H/DCN OR RALR2I/DCN OR RALR2J/DCN OR

RALR2K/DCN OR RALVNH/DCN OR RALVNI/DCN OR RALWQ4/DCN OR  
 RAM3BG/DCN OR RAM3BH/DCN OR RAM3BK/DCN OR RAM58J/DCN OR  
 RANFCG/DCN OR RANFCH/DCN OR RANFCI/DCN OR RANFCJ/DCN OR  
 RANFCK/DCN OR RAONLS/DCN OR RAQSNB/DCN OR RAQVPA/DCN OR  
 RAQVPB/DCN OR RAQVP9/DCN OR RAQ417/DCN OR RAR4BE/DCN OR  
 RAR4KQ/DCN OR RAR4KR/DCN OR RAR4KV/DCN OR RAR8QC/DCN OR  
 RA0EPA/DCN OR RA0EPB/DCN OR RA0EPC/DCN OR RA0EPD/DCN OR  
 RA0EPE/DCN OR RA0EPF/DCN OR RA0EPI/DCN OR RA0EP2/DCN OR  
 RA0EP9/DCN OR RA0HJ3/DCN OR RA0OIO/DCN OR RA0OKN/DCN OR  
 RA0OKP/DCN OR RA0OKR/DCN OR RA0OKS/DCN OR RA0OKT/DCN OR  
 RA0OKU/DCN OR RA0OKV/DCN OR RA0OKX/DCN OR RA0OKY/DCN OR  
 RA0OKZ/DCN OR RA0OL0/DCN OR RA0OL1/DCN OR RA0OL2/DCN OR  
 RA0OL3/DCN OR RA0OL4/DCN OR RA0OL5/DCN OR RA0OL6/DCN OR  
 RA0OL7/DCN OR RA0OL8/DCN OR RA0OL  
 L210 259 SEA FILE=WPIX ABB=ON PLU=ON L208/DCR  
 L211 259 SEA FILE=WPIX ABB=ON PLU=ON (L209 OR L210)  
 L212 23 SEA FILE=WPIX ABB=ON PLU=ON L209 (P) (M710 OR M720)/M0,M1,M2,  
 M3,M4,M5,M6  
 L213 0 SEA FILE=WPIX ABB=ON PLU=ON L211 AND L32  
 L214 7 SEA FILE=WPIX ABB=ON PLU=ON L212 AND L73  
 L215 QUE ABB=ON PLU=ON ((H40? OR H42? OR H46? OR H48?)(P)M7  
 30)/M0,M1,M2,M3,M4,M5,M6  
 L216 3 SEA FILE=WPIX ABB=ON PLU=ON L212 AND L215  
 L217 2 SEA FILE=WPIX ABB=ON PLU=ON L214 AND L216  
 L218 8 SEA FILE=WPIX ABB=ON PLU=ON L213 OR L214 OR L216 OR L217  
 L219 8 SEA FILE=WPIX ABB=ON PLU=ON L214 OR L216  
 L220 8 SEA FILE=WPIX ABB=ON PLU=ON (L218 OR L219)  
 L221 0 SEA FILE=WPIX ABB=ON PLU=ON L220 AND (L10 OR L11 OR L12)

=> d his 1227

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 14:13:01 ON 30 OCT 2007)  
 L227 1 S L226 AND L10-L13

=> d que nos 1227

L10 QUE ABB=ON PLU=ON JUST, E?/AU  
 L11 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
 L12 QUE ABB=ON PLU=ON JENKNER, P?/AU  
 L13 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
 L32 QUE ABB=ON PLU=ON C07F0007-14/IPC  
 L74 STR  
 L76 2634 SEA FILE=REGISTRY SSS FUL L74  
 L224 760 SEA FILE=REGISTRY ABB=ON PLU=ON L76 AND (USPATFULL OR USPAT2  
 OR USPATOLD)/LC  
 L225 955 SEA L224  
 L226 5 SEA L225 AND L32  
 L227 1 SEA L226 AND (L10 OR L11 OR L12 OR L13)

=> dup rem 1189 1235 1194 1202 1221 1227

L189 HAS NO ANSWERS

L194 HAS NO ANSWERS

L202 HAS NO ANSWERS

L221 HAS NO ANSWERS

DUPLICATE IS NOT AVAILABLE IN 'CHEMINFORMRX'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

FILE 'HCAPLUS' ENTERED AT 14:54:52 ON 30 OCT 2007

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10/583,553

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FILE 'USPATFULL' ENTERED AT 14:54:52 ON 30 OCT 2007

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PROCESSING COMPLETED FOR L189

PROCESSING COMPLETED FOR L235

PROCESSING COMPLETED FOR L194

PROCESSING COMPLETED FOR L202

PROCESSING COMPLETED FOR L221

PROCESSING COMPLETED FOR L227

L240            2 DUP REM L189 L235 L194 L202 L221 L227 (0 DUPLICATES REMOVED)

ANSWER '1' FROM FILE HCAPLUS

ANSWER '2' FROM FILE USPATFULL

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 14:55:12 ON 30 OCT 2007

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Oct 26, 2007 (20071026/UP).

=> d ibib ed abs hitind hitstr  
 YOU HAVE REQUESTED DATA FROM FILE 'USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L240 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:277529 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:308604  
 TITLE: Fluoroalkyl-containing organosilicon compounds and their use  
 INVENTOR(S): Jenkner, Peter; Frings, Albert-Johannes; Horn, Michael; Monkiewicz, Jaroslaw; Standke, Burkhard  
 PATENT ASSIGNEE(S): Huls Aktiengesellschaft, Germany; Degussa AG  
 SOURCE: Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 838467	A1	19980429	EP 1997-115056	19970830 <--
EP 838467	B1	20030402		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19644561	A1	19980430	DE 1996-19644561	19961026 <--
DE 19644561	C2	20031016		
TW 506972	B	20021021	TW 1997-86110794	19970729 <--
JP 10130278	A	19980519	JP 1997-230753	19970827 <--
AT 236170	T	20030415	AT 1997-115056	19970830 <--
ES 2191796	T3	20030916	ES 1997-115056	19970830 <--
US 5869728	A	19990209	US 1997-955290	19971021 <--
CN 1180706	A	19980506	CN 1997-121473	19971023 <--
CA 2219606	A1	19980426	CA 1997-2219606	19971024 <--
US 6255516	B1	20010703	US 1998-207988	19981209 <--
PRIORITY APPLN. INFO.:			DE 1996-19644561	A 19961026
			US 1997-955290	A1 19971021

OTHER SOURCE(S): CASREACT 128:308604

ED Entered STN: 14 May 1998

AB The preparation of fluoroalkyl group containing organosilicon compds. via reaction of fluoro olefin with silicon-hydrogen bond containing organosilane in the presence of platinum(0) catalyst is described. Thus, Pt(0)-divinyldimethyltetramethyldisiloxane catalyzed reaction of 1,1,2,2-tetrafluoroethyl allyl ether with trichlorosilane in xylene gave 96% 3-(1,1,2,2-tetrafluoroethoxy)propyltrichlorosilane.

IC ICM C07F007-14

ICS C07F007-18; D06M013-513; C08L083-08; C08G077-385

CC 29-6 (Organometallic and Organometalloidal Compounds)

IT 78560-45-9P 78560-47-1P **94232-72-1P**

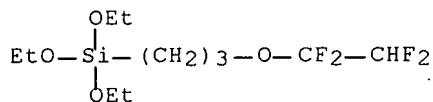
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

IT **94232-72-1P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 94232-72-1 HCAPLUS

CN Silane, triethoxy[3-(1,1,2,2-tetrafluoroethoxy)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib ab hitstr 2

YOU HAVE REQUESTED DATA FROM FILE 'USPATFULL, HCAPLUS' - CONTINUE? (Y)/N:y

L240 ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2001:103025 USPATFULL Full-text

TITLE: Process for preparing fluoroalkyl-containing organosilicon compounds, and their use

INVENTOR(S): Jenkner, Peter, Rheinfelden, Germany, Federal Republic of  
Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of  
Horn, Michael, Rheinfelden, Germany, Federal Republic of  
Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of  
Standke, Burkhard, Loerrach, Germany, Federal Republic of  
PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6255516	B1	20010703
APPLICATION INFO.:	US 1998-207988		19981209 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-955290, filed on 21 Oct 1997, now patented, Pat. No. US 5869728		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19644561	19961026
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Shaver, Paul F.	
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
LINE COUNT:	504	

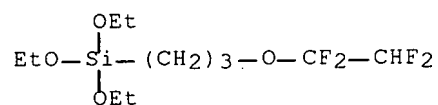
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fluoroalkyl organosilicon compounds are prepared by reacting fluoroolefins with organosilicon compounds that contain at least one H-Si group, in the presence of a Pt(0) complex catalyst. Further, fluoroalkylalkoxy organosilicon compounds are prepared by esterifying fluoroalkyl organosilicon compounds. The process proceeds uniformly under mild conditions with high yields and selectivities.

IT 94232-72-1P

(preparation of)

RN 94232-72-1 USPATFULL

CN Silane, triethoxy[3-(1,1,2,2-tetrafluoroethoxy)propyl]- (9CI) (CA INDEX  
NAME)

=&gt; file stnguide

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LAST RELOADED: Oct 26, 2007 (20071026/UP).

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(FILE 'HOME' ENTERED AT 12:52:20 ON 30 OCT 2007)

FILE 'STNGUIDE' ENTERED AT 12:52:22 ON 30 OCT 2007  
D SAVEDFILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, USPATOLD, USPAT2,  
JAPIO, SCISEARCH' ENTERED AT 12:55:27 ON 30 OCT 2007FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, USPATFULL, USPATOLD, USPAT2,  
JAPIO, SCISEARCH, WPIX' ENTERED AT 12:55:56 ON 30 OCT 2007  
ACT NWA553MAIN/A

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L1          SEL PLU=ON  L1 1- RN :          9 TERMS
L2          STR
L3 (        294)SEA SSS FUL L2 (  2129 REACTIONS)
L4          STR
L5 (          1)SEA SUB=L3 SSS FUL L4 (      5 REACTIONS)
L6          STR
L7 (          2)SEA SUB=L3 SSS FUL L6 (      6 REACTIONS)
L8          QUE ABB=ON  PLU=ON  PT? OR ?PLATIN? OR HPT?
L9          QUE ABB=ON  PLU=ON  ?H2PT?
L10         QUE ABB=ON  PLU=ON  JUST, E?/AU
L11         QUE ABB=ON  PLU=ON  GIESSLER, S?/AU
L12         QUE ABB=ON  PLU=ON  JENKNER, P?/AU
L13         QUE ABB=ON  PLU=ON  (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L14         QUE ABB=ON  PLU=ON  AY<2005 OR PY<2005 OR PRY<2005 OR MY<2005
          OR REVIEW/DT
L15         QUE ABB=ON  PLU=ON  AY<2005 OR PY<2005 OR PRY<2005
L16 (        117)SEA SSS FUL L2 (   385 REACTIONS)
L17         QUE ABB=ON  PLU=ON  HYDROSIL? OR (HYDRO(W)(SILAT? OR SILYLAT?))

L18         QUE ABB=ON  PLU=ON  ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR
          ((?FLUOR? OR PERFLUOR? OR OLIGOFLUOR? OR DIFLUOR? OR TRIFLUOR?)
          (3A) (?OLEFIN? OR ?ALKEN?))
L19         QUE ABB=ON  PLU=ON  ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR
          TRICHLOR?)(3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?)
          OR (?SILYL?(1W)?CHLORID?)
L20         QUE ABB=ON  PLU=ON  ?CL6PT?
L21         QUE ABB=ON  PLU=ON  ?HEXACHLOROPLATIN?
L22         QUE ABB=ON  PLU=ON  ?CATALY?
L23         QUE ABB=ON  PLU=ON  F OR ?FLUORO? OR ?FLUORID?
L24         QUE ABB=ON  PLU=ON  ?FLUORIN?
L25         QUE ABB=ON  PLU=ON  CL OR CHLORINAT? OR ?CHLORO? OR ?CHLORID?
L26         QUE ABB=ON  PLU=ON  SI OR SILICON
L27         QUE ABB=ON  PLU=ON  "ALKENES, REACTIONS"+PFT,OLD,NEW,NT/CT
L28         QUE ABB=ON  PLU=ON  ALKENES+PFT,OLD,NEW/CT (L) (L23 OR L24)
L29         QUE ABB=ON  PLU=ON  L27 (L) (L23 OR L24)
L30         QUE ABB=ON  PLU=ON  HYDROSILYLATION+PFT,OLD,NEW,NT/CT
L31         QUE ABB=ON  PLU=ON  "HYDROSILYLATION CATALYSTS"+PFT,OLD,NEW,NT/
          CT
L32         QUE ABB=ON  PLU=ON  C07F0007-14/IPC
L33 (        243)SEA ABB=ON  PLU=ON  L32
L34 (        226)SEA ABB=ON  PLU=ON  L2
L35 (        101)SEA ABB=ON  PLU=ON  L2
L36 (          7)SEA ABB=ON  PLU=ON  L33 AND (L34 OR L35)
L37 (       1312)SEA ABB=ON  PLU=ON  L2
L38 (          6)SEA ABB=ON  PLU=ON  L36 AND L37

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L39(      81)SEA L2
L40(      2)SEA L36 AND L39
L41(      7)SEA L36 OR L38 OR L40
L42(      1)SEA L41 AND (L10 OR L11 OR L12 OR L13)
L43(      6)SEA L41 NOT L42
L44(      6)SEA L43 AND L15
L45          QUE ABB=ON   PLU=ON   N02-F/MC
L46          QUE ABB=ON   PLU=ON   (A678(P)Q421)/M0,M1,M2,M3,M4,M5,M6
L47          QUE ABB=ON   PLU=ON   (H721(P)M730(P)(H601 OR H609 OR H685 OR
H684 OR H689))/M0,M1,M2,M3,M4,M5,M6
L48          QUE ABB=ON   PLU=ON   (B114(P)M730(P)(B751 OR B752))/M0,M1,M2,M3,
M4,M5,M6
L49          QUE ABB=ON   PLU=ON   (B414(P)M720(P)N213(P)(H601 OR H509 OR
H684 OR H685 OR H689))/M0,M1,M2,M3,M4,M5,M6
L50(      2)SEA L2
L51(     27)SEA L2
L52(      0)SEA L2
L53(      0)SEA L50 AND L51
L54(      0)SEA (L52 OR L53)
L55(     26)SEA L17(15A) L18
L56(      6)SEA L55 (20A) L19
L57(      5)SEA L56 AND (L8 OR L9 OR L20 OR L21)
L58(      5)SEA L57 AND (L22 OR L26 OR (L23 OR L24) OR L25)
L59      66 DUP REM L16 L17 L33 L44 L50 L50 L58 L54 (19 DUPLICATES REM
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FILE 'STNGUIDE' ENTERED AT 12:56:08 ON 30 OCT 2007

FILE 'ZCAPLUS' ENTERED AT 12:57:23 ON 30 OCT 2007

L60 QUE ABB=ON PLU=ON ESTER?

FILE 'HCAPLUS' ENTERED AT 12:57:41 ON 30 OCT 2007

ACT NWA553HCAAPP/A

L61 1 SEA ABB=ON PLU=ON US2006-583553/APPS

FILE 'WPIX' ENTERED AT 12:58:00 ON 30 OCT 2007

ACT NWA553WPIAPP/A

L62 1 SEA ABB=ON PLU=ON US2006-583553/APPS

FILE 'REGISTRY' ENTERED AT 12:58:14 ON 30 OCT 2007

ACT NWA553REGAPP/A

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L63(      1)SEA FILE=HCAPLUS ABB=ON   PLU=ON   US2006-583553/APPS
L64          SEL PLU=ON   L63 1- RN :          9 TERMS
L65          9 SEA ABB=ON   PLU=ON   L64
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FILE 'STNGUIDE' ENTERED AT 12:58:34 ON 30 OCT 2007

FILE 'REGISTRY' ENTERED AT 12:59:13 ON 30 OCT 2007

D SCAN L65

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L66          1 SEA ABB=ON   PLU=ON   L65 AND "C8 H4 CL3 F13 SI"/MF
L67          1 SEA ABB=ON   PLU=ON   L65 AND PT/ELS
L68          3 SEA ABB=ON   PLU=ON   L65 AND SI/ELS
L69          2 SEA ABB=ON   PLU=ON   L68 NOT F/ELS
          D SCAN

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L70 2 SEA ABB=ON PLU=ON L69 NOT L66  
L71 1 SEA ABB=ON PLU=ON L69 NOT L67  
L72 6 SEA ABB=ON PLU=ON L65 NOT (L66 OR L67 OR L71)  
D SCAN

FILE 'STNGUIDE' ENTERED AT 13:01:49 ON 30 OCT 2007

L73 FILE 'ZCAPLUS' ENTERED AT 13:01:57 ON 30 OCT 2007  
QUE ABB=ON PLU=ON ?ALCOHOL? OR ?ALKANOL? OR ?POLYOL? OR  
?GLYCOL? OR ?DIOL OR ?TRIOLE OR POLYALCOHOL? OR POLYALKANOL?

L74 FILE 'LREGISTRY' ENTERED AT 13:02:54 ON 30 OCT 2007  
STR

L75 FILE 'REGISTRY' ENTERED AT 13:05:58 ON 30 OCT 2007  
50 SEA SSS SAM L74

FILE 'STNGUIDE' ENTERED AT 13:07:00 ON 30 OCT 2007  
D QUE STAT

L76 FILE 'REGISTRY' ENTERED AT 13:09:30 ON 30 OCT 2007  
D QUE STAT  
2634 SEA SSS FUL L74  
SAVE TEMP L76 NWA553BPSET1/A

FILE 'STNGUIDE' ENTERED AT 13:10:22 ON 30 OCT 2007

FILE 'HCAPLUS' ENTERED AT 13:10:31 ON 30 OCT 2007  
D SCAN L61

FILE 'STNGUIDE' ENTERED AT 13:10:38 ON 30 OCT 2007

L77 FILE 'ZCAPLUS' ENTERED AT 13:10:57 ON 30 OCT 2007  
L78 QUE ABB=ON PLU=ON HYDROSILYLATION+PFT,OLD,NEW,NT/CT  
QUE ABB=ON PLU=ON "HYDROSILYLATION CATALYSTS"+PFT,OLD,NEW,NT/  
CT  
D QUE L59  
L79 QUE ABB=ON PLU=ON PT OR ?PLATINUM? OR ?PLATIN?

L80 FILE 'HCAPLUS' ENTERED AT 13:14:21 ON 30 OCT 2007  
1138 SEA ABB=ON PLU=ON L76 (L) (PREP+NT)/RL

L81 FILE 'ZCAPLUS' ENTERED AT 13:14:43 ON 30 OCT 2007  
QUE ABB=ON PLU=ON ESTERIFICATION+PFT,OLD,NEW,NT/CT  
E ALCOHOLS/CT  
L82 QUE ABB=ON PLU=ON ALCOHOLS+PFT,OLD,NEW/CT

L83 FILE 'HCAPLUS' ENTERED AT 13:15:46 ON 30 OCT 2007  
16 SEA ABB=ON PLU=ON L80 (L) L60

FILE 'STNGUIDE' ENTERED AT 13:16:52 ON 30 OCT 2007  
D SAVED

FILE 'REGISTRY' ENTERED AT 13:17:44 ON 30 OCT 2007  
ACT NWA553BPSET1/A

L84 STR  
L\*\*\* DEL 2634 SEA FILE=REGISTRY SSS FUL L84  
D QUE

FILE 'STNGUIDE' ENTERED AT 13:18:36 ON 30 OCT 2007  
D SAVED

FILE 'HCAPLUS' ENTERED AT 13:18:50 ON 30 OCT 2007  
ACT NWA553HCAB/A

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L85(      1)SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2006-583553/APPS
L86      SEL PLU=ON  L85 1- RN :          9 TERMS
L87(      9)SEA FILE=REGISTRY ABB=ON  PLU=ON  L86
L88(      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  L87 AND "CL3 H SI"/MF
L89(      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  L87 AND F/ELS AND CL/ELS
L90(      7)SEA FILE=REGISTRY ABB=ON  PLU=ON  L87 AND F/ELS
L91(      6)SEA FILE=REGISTRY ABB=ON  PLU=ON  L90 NOT L89
L92(      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  L87 AND PT/ELS
L93      QUE ABB=ON  PLU=ON  PT? OR ?PLATIN? OR HPT?
L94      QUE ABB=ON  PLU=ON  ?H2PT?
L95      QUE ABB=ON  PLU=ON  JUST, E?/AU
L96      QUE ABB=ON  PLU=ON  GIESSLER, S?/AU
L97      QUE ABB=ON  PLU=ON  JENKNER, P?/AU
L98      QUE ABB=ON  PLU=ON  (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA
L99      QUE ABB=ON  PLU=ON  AY<2005 OR PY<2005 OR PRY<2005 OR MY<2005
      OR REVIEW/DT
L100     QUE ABB=ON  PLU=ON  HYDROSIL? OR (HYDRO(W)(SILAT? OR SILYLAT?))
L101     QUE ABB=ON  PLU=ON  ?FLUOROOLEFIN? OR ?FLUOROALKEN? OR
      ((?FLUOR? OR PERFLUOR? OR OLIGOFUOR? OR DIFLUOR? OR TRIFLUOR?)
      (3A) (?OLEFIN? OR ?ALKEN?))
L102     QUE ABB=ON  PLU=ON  ?CHLOROSIL? OR ((?CHLOR? OR DICHLOR? OR
      TRICHLOR?)(3A) (?SILYL? OR ?SILAN?)) OR (?SILYL?(1T)?CHLORID?)
      OR (?SILYL?(1W)?CHLORID?)
L103     QUE ABB=ON  PLU=ON  ?CL6PT?
L104     QUE ABB=ON  PLU=ON  ?HEXACHLOROPLATIN?
L105     QUE ABB=ON  PLU=ON  ?CATALY?
L106     QUE ABB=ON  PLU=ON  F OR ?FLUORO? OR ?FLUORID?
L107     QUE ABB=ON  PLU=ON  ?FLUORIN?
L108     QUE ABB=ON  PLU=ON  CL OR CHLORINAT? OR ?CHLORO? OR ?CHLORID?
L109     QUE ABB=ON  PLU=ON  SI OR SILICON
L110     QUE ABB=ON  PLU=ON  "ALKENES, REACTIONS"+PFT,OLD,NEW,NT/CT
L111     QUE ABB=ON  PLU=ON  ALKENES+PFT,OLD,NEW/CT (L) (L106 OR L107)
L112     QUE ABB=ON  PLU=ON  L110 (L) (L106 OR L107)
L113     QUE ABB=ON  PLU=ON  HYDROSILYLATION+PFT,OLD,NEW,NT/CT
L114     QUE ABB=ON  PLU=ON  "HYDROSILYLATION CATALYSTS"+PFT,OLD,NEW,NT/
      CT
L115(      14)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L89 (L) (PREP+NT)/RL
L116(      431)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L91(L) (RACT+NT)/RL
L117(      2354)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L88 (L) (RACT+NT)/RL
L118(      9)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L116 AND L117 AND L115
L119(      182)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L92(L)CAT/RL
L120(      2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L118 AND L119
L121(      1594)SEA FILE=HCAPLUS ABB=ON  PLU=ON  ((L111 OR L112))(L) (RACT+NT)/
L122(      1963)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L116 OR L121
L123(      45)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L122 (L)L100
L124(      36)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L122 AND L113
L125(      31)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L122 AND L117
L126(      875)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L114 (L) (L93 OR L94 OR L103
L127(      11)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L123 OR L124 OR L125) AND L15
L128(      19)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L123 OR L124 OR L125) AND ((P
L129(      24)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L118 OR L120 OR L127 OR L128
L130(      24)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L129 AND (L93 OR L94 OR (L12

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L131( 24)SEA FILE=HCAPLUS ABB=ON PLU=ON (L129 OR L130)  
 L132( 2)SEA FILE=HCAPLUS ABB=ON PLU=ON L131 AND (L95 OR L96 OR L97  
 L133( 1)SEA FILE=HCAPLUS ABB=ON PLU=ON L132 AND L85  
 L134( 2)SEA FILE=HCAPLUS ABB=ON PLU=ON (L132 OR L133)  
 L135( 22)SEA FILE=HCAPLUS ABB=ON PLU=ON L131 NOT L134  
 L136 18 SEA ABB=ON PLU=ON L135 AND L99

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 D QUE STAT

FILE 'STNGUIDE' ENTERED AT 13:19:07 ON 30 OCT 2007

FILE 'HCAPLUS' ENTERED AT 13:19:44 ON 30 OCT 2007

L137 41 SEA ABB=ON PLU=ON L80 (L) L73  
 D QUE  
 L138 3 SEA ABB=ON PLU=ON L80 AND (L82 (L) L60)  
 L139 1 SEA ABB=ON PLU=ON L80 AND (L81 (L) L73)  
 L140 8 SEA ABB=ON PLU=ON L80 AND L32  
 L141 49 SEA ABB=ON PLU=ON (L137 OR L138 OR L139 OR L140)

FILE 'REGISTRY' ENTERED AT 13:24:01 ON 30 OCT 2007

L142 1628 SEA ABB=ON PLU=ON L76 NOT PMS/CI

FILE 'HCAPLUS' ENTERED AT 13:24:17 ON 30 OCT 2007

L143 2315 SEA ABB=ON PLU=ON L142  
 L144 541 SEA ABB=ON PLU=ON L143 (L) (PREP+NT)/RL  
 L145 22 SEA ABB=ON PLU=ON L144 (L) L73  
 L146 29 SEA ABB=ON PLU=ON L141 AND L144  
 L147 29 SEA ABB=ON PLU=ON L145 OR L146  
 L148 1 SEA ABB=ON PLU=ON L147 AND (L10 OR L11 OR L12 OR L13)  
 L149 28 SEA ABB=ON PLU=ON L147 NOT L148  
 L150 27 SEA ABB=ON PLU=ON L149 AND L14  
 D SCAN TI HIT

FILE 'STNGUIDE' ENTERED AT 13:28:38 ON 30 OCT 2007

FILE 'HCAPLUS' ENTERED AT 13:29:48 ON 30 OCT 2007

L151 26655 SEA ABB=ON PLU=ON L82 (L) (RACT+NT)/RL  
 L152 4760 SEA ABB=ON PLU=ON L81 (L) L73  
 L\*\*\* DEL 7 S L150 AND (L32 OR L1510L152)  
 D SCAN TI HIT  
 L153 15 SEA ABB=ON PLU=ON L150 AND (L32 OR (L151 OR L152))  
 D SCAN TI HIT  
 L154 12 SEA ABB=ON PLU=ON L150 NOT L153  
 D SCAN TI HIT

FILE 'STNGUIDE' ENTERED AT 13:33:02 ON 30 OCT 2007

FILE 'HCAPLUS' ENTERED AT 13:34:32 ON 30 OCT 2007

L155 1 SEA ABB=ON PLU=ON L154 AND PROMOTER/TI  
 L156 12 SEA ABB=ON PLU=ON L154 OR L155  
 SAVE TEMP L156 NWA553BHCAB/A

FILE 'CASREACT' ENTERED AT 13:35:09 ON 30 OCT 2007

FILE 'STNGUIDE' ENTERED AT 13:35:16 ON 30 OCT 2007

FILE 'LREGISTRY' ENTERED AT 13:35:25 ON 30 OCT 2007

D QUE L76  
 L157 STR L74

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FILE 'CASREACT' ENTERED AT 13:36:47 ON 30 OCT 2007  
L158 4 SEA SSS SAM L157 ( 7 REACTIONS)  
D SCAN

FILE 'STNGUIDE' ENTERED AT 13:37:37 ON 30 OCT 2007  
D QUE STAT  
D SAVED

FILE 'CASREACT' ENTERED AT 13:40:14 ON 30 OCT 2007  
ACT NWA553CRXP/A

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L159 STR  
L160 294 SEA SSS FUL L159 ( 2129 REACTIONS)  
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L161 4 SEA SSS SAM L157 ( 7 REACTIONS)  
L162 47 SEA SSS FUL L157 ( 124 REACTIONS)  
SAVE TEMP L162 NWA553BCRXSI/A  
L163 6 SEA ABB=ON PLU=ON L160 AND L162  
L164 0 SEA ABB=ON PLU=ON L162 AND L32  
L165 6 SEA ABB=ON PLU=ON (L163 OR L164)  
D SCAN  
ACT NWA553CRXB/A  
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L166 STR  
L167( 294) SEA FILE=CASREACT SSS FUL L166 ( 2129 REACTIONS)  
L168 STR  
L169( 1) SEA FILE=CASREACT SUB=L167 SSS FUL L168 ( 5 REACTIONS)  
L170 STR  
L171( 2) SEA FILE=CASREACT SUB=L167 SSS FUL L170 ( 6 REACTIONS)  
L172( 29) SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (PT?/BI,AB OR ?PLATI  
L173( 29) SEA FILE=CASREACT ABB=ON PLU=ON L172 OR L169 OR L171  
L174( 7) SEA FILE=CASREACT ABB=ON PLU=ON L167 AND (?H2PT?/BI,AB)  
L175( 31) SEA FILE=CASREACT ABB=ON PLU=ON L174 OR L173  
L176 QUE ABB=ON PLU=ON JUST, E?/AU  
L177 QUE ABB=ON PLU=ON GIESSLER, S?/AU  
L178 QUE ABB=ON PLU=ON JENKNER, P?/AU  
L179 QUE ABB=ON PLU=ON (DEGUSSA OR (DE(W)GUSSA))/CS,SO,PA  
L180 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR MY<2005  
OR REVIEW/DT  
L181( 2) SEA FILE=CASREACT ABB=ON PLU=ON L175 AND (L176 OR L177 OR L17  
L182( 29) SEA FILE=CASREACT ABB=ON PLU=ON L175 NOT L181  
L183 26 SEA ABB=ON PLU=ON L182 AND L180  
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L184 3 SEA ABB=ON PLU=ON L183 AND L162  
L185 6 SEA ABB=ON PLU=ON L165 OR L184  
L186 93 SEA ABB=ON PLU=ON L76/PRO  
L187 19 SEA ABB=ON PLU=ON L186 AND (L160 OR L183 OR L32)  
L188 19 SEA ABB=ON PLU=ON L165 OR L184 OR L187  
L189 0 SEA ABB=ON PLU=ON L188 AND (L10 OR L11 OR L12 OR L13)  
L190 19 SEA ABB=ON PLU=ON L188 NOT L189  
L191 18 SEA ABB=ON PLU=ON L190 AND L14  
SAVE TEMP L191 NWA553CRXBB/A

FILE 'STNGUIDE' ENTERED AT 13:48:37 ON 30 OCT 2007

FILE 'CHEMINFORMRX' ENTERED AT 13:49:08 ON 30 OCT 2007  
D QUE L162  
L192 2 SEA SSS SAM L157 ( 6 REACTIONS)  
D SCAN  
D QUE STAT

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L193 6 SEA SSS FUL L157 ( 20 REACTIONS)  
SAVE TEMP L193 NWA553BCHMP/A  
L194 0 SEA ABB=ON PLU=ON L193 AND (L10 OR L11 OR L12 OR L13)  
L195 6 SEA ABB=ON PLU=ON L193 NOT L194  
L196 6 SEA ABB=ON PLU=ON L195 AND L14  
SAVE TEMP L196 NWA553BCHMB/A

FILE 'STNGUIDE' ENTERED AT 13:52:08 ON 30 OCT 2007

FILE 'BEILSTEIN' ENTERED AT 13:53:35 ON 30 OCT 2007

D QUE L76  
L197 23 SEA SSS SAM L74  
L198 405 SEA SSS FUL L74  
L199 359 SEA ABB=ON PLU=ON L198 AND RXPRO/FA  
SELECT L199 1- BABSAN

FILE 'BABS' ENTERED AT 13:55:32 ON 30 OCT 2007

L200 120 SEA ABB=ON PLU=ON (6475032/AN OR 5772354/AN OR 5998956/AN OR  
5715455/AN OR 6149153/AN OR 5929836/AN OR 6542249/AN OR  
5536535/AN OR 5588619/AN OR 5852591/AN OR 5994480/AN OR  
6410460/AN OR 5899529/AN OR 5966319/AN OR 5999654/AN OR  
6172860/AN OR 5598822/AN OR 5750997/AN OR 5760059/AN OR  
5809983/AN OR 5945497/AN OR 5951532/AN OR 6016960/AN OR  
6055145/AN OR 6175111/AN OR 6254602/AN OR 6272724/AN OR  
6440727/AN OR 6569911/AN OR 6624021/AN OR 5727676/AN OR  
5811230/AN OR 5840979/AN OR 6614959/AN OR 5575124/AN OR  
5598040/AN OR 5652310/AN OR 5702103/AN OR 5725153/AN OR  
5728440/AN OR 5767079/AN OR 5840265/AN OR 5854579/AN OR  
5864192/AN OR 5870291/AN OR 5964875/AN OR 6016604/AN OR  
6080965/AN OR 6122422/AN OR 6148237/AN OR 6323566/AN OR  
6409117/AN OR 6490177/AN OR 6502628/AN OR 6604739/AN OR  
6622674/AN OR 5511018/AN OR 5533759/AN OR 5598975/AN OR  
5610600/AN OR 5615311/AN OR 5647315/AN OR 5650749/AN OR  
5706569/AN OR 5707064/AN OR 5743523/AN OR 5744550/AN OR  
5760436/AN OR 5777666/AN OR 5793899/AN OR 5807117/AN OR  
5813636/AN OR 5840261/AN OR 5845889/AN OR 5856365/AN OR  
5872558/AN OR 5875308/AN OR 5875843/AN OR 5876081/AN OR  
5887526/AN OR 5898030/AN OR 5911332/AN OR 5912418/AN OR  
5917251/AN OR 5961001/AN OR 5999340/AN OR 6006932/AN OR  
6025617/AN OR 6048370/AN OR 6066853/AN OR 6074491/AN OR  
6074492/AN OR 6075606/AN OR 6121489/AN OR 6229467/AN OR  
6234143/AN OR 6242981/AN OR 6258910/AN OR 6284025/AN OR  
6309327/AN OR 6331982/AN OR 6336180/AN OR 6357598/AN OR  
6357872/AN OR 6360592/AN OR 6417937/AN OR 6421925/AN OR  
6447328/AN OR 6462570/AN OR 6463618/AN OR 6483661/AN OR  
6489943/AN OR 6508367/AN OR 6515954/AN OR 6535085/AN OR  
6561393/AN OR 6563403/AN OR 6592564/AN OR 6595473/AN OR  
6604494/AN)  
L201 15 SEA ABB=ON PLU=ON L200 AND L73  
D SCAN  
L202 0 SEA ABB=ON PLU=ON L201 AND (L10 OR L11 OR L12 OR L13)  
L203 15 SEA ABB=ON PLU=ON L201 NOT L202  
L204 14 SEA ABB=ON PLU=ON L203 AND L14  
L205 10 SEA ABB=ON PLU=ON L204 AND (L60 OR L17 OR L18 OR L19 OR (L20  
OR L21) OR L79 OR (L23 OR L24 OR L25 OR L26))  
L206 14 SEA ABB=ON PLU=ON (L204 OR L205)  
D SCAN

FILE 'STNGUIDE' ENTERED AT 13:59:35 ON 30 OCT 2007

FILE 'WPIX' ENTERED AT 13:59:54 ON 30 OCT 2007

D QUE L76

L207 22 SEA SSS SAM L74

L208 189 SEA SSS FUL L74

SAVE TEMP L208 NWA553BWPIS/A

D TRI 1-5

SELECT L208 1- SDCN

L209 259 SEA ABB=ON PLU=ON (RAAFCZ/DCN OR RAAJJS/DCN OR RAAJJV/DCN OR RAAJJK/DCN OR RAATNQ/DCN OR RAATNS/DCN OR RAAVHW/DCN OR RAAVHX/DCN OR RAAVHY/DCN OR RAAVHZ/DCN OR RAA084/DCN OR RAA085/DCN OR RAA086/DCN OR RAA087/DCN OR RABBOM/DCN OR RABBON/DCN OR RABBOO/DCN OR RABBOP/DCN OR RABBOQ/DCN OR RABBOR/DCN OR RABBOS/DCN OR RABBOT/DCN OR RABSDL/DCN OR RABS1Q/DCN OR RACAM1/DCN OR RACKP5/DCN OR RACKP7/DCN OR RACYKW/DCN OR RACYKX/DCN OR RADGO2/DCN OR RADGO5/DCN OR RADLCJ/DCN OR RAD02W/DCN OR RAD21F/DCN OR RAD21N/DCN OR RAD4AM/DCN OR RAD5N4/DCN OR RAEFJN/DCN OR RAEFNM/DCN OR RAERZS/DCN OR RAEXYM/DCN OR RAEXYN/DCN OR RAEXYO/DCN OR RAEXYP/DCN OR RAEXYM/DCN OR RAEXYO/DCN OR RAEXYP/DCN OR RAEXYQ/DCN OR RAEDNP/DCN OR RAEE61/DCN OR RAFFW2/DCN OR RAFFW3/DCN OR RAFFDC/DCN OR RAFFDF/DCN OR RAF39M/DCN OR RAGBO7/DCN OR RAGBO8/DCN OR RAGTM1/DCN OR RAG5ZW/DCN OR RAG6EX/DCN OR RAG6F0/DCN OR RAG6F1/DCN OR RAHTJ1/DCN OR RAH3UB/DCN OR RAH3UC/DCN OR RAIDFE/DCN OR RAIDF4/DCN OR RAIFNX/DCN OR RAINF6/DCN OR RAIVNE/DCN OR RAJULZ/DCN OR RAJ41Y/DCN OR RAKKQ9/DCN OR RALDJJ/DCN OR RALR2C/DCN OR RALR2D/DCN OR RALR2E/DCN OR RALR2F/DCN OR RALR2G/DCN OR RALR2H/DCN OR RALR2I/DCN OR RALR2J/DCN OR RALR2K/DCN OR RALVNH/DCN OR RALVNI/DCN OR RALWQ4/DCN OR RAM3BG/DCN OR RAM3BH/DCN OR RAM3BK/DCN OR RAM58J/DCN OR RANFCG/DCN OR RANFCH/DCN OR RANFCI/DCN OR RANFCJ/DCN OR RANFCK/DCN OR RAONLS/DCN OR RAQSNB/DCN OR RAQVPA/DCN OR RAQVPB/DCN OR RAQVP9/DCN OR RAQ417/DCN OR RAR4BE/DCN OR RAR4KQ/DCN OR RAR4KR/DCN OR RAR4KV/DCN OR RAR8QC/DCN OR RA0EPA/DCN OR RA0EPB/DCN OR RA0EPC/DCN OR RA0EPD/DCN OR RA0EPE/DCN OR RA0EPF/DCN OR RA0EPI/DCN OR RA0EP2/DCN OR RA0EP9/DCN OR RA0HJ3/DCN OR RA0OIO/DCN OR RA0OKN/DCN OR RA0OKP/DCN OR RA0OKR/DCN OR RA0OKS/DCN OR RA0OKT/DCN OR RA0OKU/DCN OR RA0OKV/DCN OR RA0OKX/DCN OR RA0OKY/DCN OR RA0OKZ/DCN OR RA0OL0/DCN OR RA0OL1/DCN OR RA0OL2/DCN OR RA0OL3/DCN OR RA0OL4/DCN OR RA0OL5/DCN OR RA0OL6/DCN OR RA0OL7/DCN OR RA0OL8/DCN OR RA0OL

L210 259 SEA ABB=ON PLU=ON L208/DCR

FILE 'STNGUIDE' ENTERED AT 14:01:58 ON 30 OCT 2007

D QUE L32

FILE 'WPIX' ENTERED AT 14:03:56 ON 30 OCT 2007

L211 259 SEA ABB=ON PLU=ON (L209 OR L210)

L212 23 SEA ABB=ON PLU=ON L209 (P) (M710 OR M720)/M0,M1,M2,M3,M4,M5,M6

L213 0 SEA ABB=ON PLU=ON L211 AND L32

D TRI L212 1-5

L214 7 SEA ABB=ON PLU=ON L212 AND L73

L215 QUE ABB=ON PLU=ON ((H40? OR H42? OR H46? OR H48?) (P)M730)/M0,M1,M2,M3,M4,M5,M6

L216 3 SEA ABB=ON PLU=ON L212 AND L215

L217 2 SEA ABB=ON PLU=ON L214 AND L216

L218 8 SEA ABB=ON PLU=ON L213 OR L214 OR L216 OR L217

L219 8 SEA ABB=ON PLU=ON L214 OR L216

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L220 8 SEA ABB=ON PLU=ON (L218 OR L219)  
L221 0 SEA ABB=ON PLU=ON L220 AND (L10 OR L11 OR L12)  
L222 8 SEA ABB=ON PLU=ON L220 NOT L221  
L223 8 SEA ABB=ON PLU=ON L222 AND L15  
SAVE TEMP L223 NWA553BWPIB/A  
D TRI 1-8

FILE 'STNGUIDE' ENTERED AT 14:12:10 ON 30 OCT 2007

FILE 'REGISTRY' ENTERED AT 14:12:37 ON 30 OCT 2007

L224 760 SEA ABB=ON PLU=ON L76 AND (USPATFULL OR USPAT2 OR USPATOLD)/L  
C

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 14:13:01 ON 30 OCT 2007

L225 955 SEA ABB=ON PLU=ON L224  
L226 5 SEA ABB=ON PLU=ON L225 AND L32  
L227 1 SEA ABB=ON PLU=ON L226 AND (L10 OR L11 OR L12 OR L13)  
L228 4 SEA ABB=ON PLU=ON L226 NOT L227  
L229 4 SEA ABB=ON PLU=ON L228 AND L15  
SAVE TEMP L229 NWA553BUSPB/A  
D SCAN

FILE 'STNGUIDE' ENTERED AT 14:14:21 ON 30 OCT 2007

D QUE L157  
D QUE L156

FILE 'HCAPLUS' ENTERED AT 14:15:18 ON 30 OCT 2007

L230 1155 SEA ABB=ON PLU=ON L72 OR L66  
L231 469 SEA ABB=ON PLU=ON L230 (L) (RACT+NT)/RL  
L232 27 SEA ABB=ON PLU=ON L80 AND L231  
L233 6 SEA ABB=ON PLU=ON L232 AND (L73 OR L82)  
L234 0 SEA ABB=ON PLU=ON L233 AND (L10 OR L11 OR L12 OR L13)  
L235 1 SEA ABB=ON PLU=ON L148 OR L234  
L\*\*\* DEL 0 S L234 AND L14  
L236 6 SEA ABB=ON PLU=ON L233 NOT L234  
L237 6 SEA ABB=ON PLU=ON L236 AND L14  
L238 17 SEA ABB=ON PLU=ON L237 OR L156  
SAVE TEMP L238 NWA553BHCB/A

FILE 'STNGUIDE' ENTERED AT 14:18:39 ON 30 OCT 2007

D SAVED  
D QUE STAT L76  
D QUE NOS L238  
D QUE STAT L160  
D QUE STAT L183  
D QUE STAT L162  
D QUE STAT L191  
D QUE STAT L193

FILE 'STNGUIDE' ENTERED AT 14:40:29 ON 30 OCT 2007

D QUE NOS L196  
D QUE STAT L98  
D QUE STAT L198  
D QUE L206  
D QUE STAT L208  
D QUE NOS L223  
D QUE NOS L229

FILE 'CASREACT, CHEMINFORMRX, HCAPLUS, BABS, WPIX, USPATFULL' ENTERED AT  
14:43:26 ON 30 OCT 2007

L239            62 DUP REM L191 L196 L238 L206 L223 L229 (5 DUPLICATES REMOVED)  
                 ANSWERS '1-18' FROM FILE CASREACT  
                 ANSWERS '19-24' FROM FILE CHEMINFORMRX  
                 ANSWERS '25-40' FROM FILE HCAPLUS  
                 ANSWERS '41-52' FROM FILE BABS  
                 ANSWERS '53-60' FROM FILE WPIX  
                 ANSWERS '61-62' FROM FILE USPATFULL  
                 SAVE TEMP L239 NWA553BMAIN/A

FILE 'STNGUIDE' ENTERED AT 14:43:45 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:44:30 ON 30 OCT 2007  
                 D IBIB AB FHIT

FILE 'STNGUIDE' ENTERED AT 14:44:32 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:45:04 ON 30 OCT 2007  
                 D IBIB AB FHIT 2-18

FILE 'STNGUIDE' ENTERED AT 14:45:27 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:48:15 ON 30 OCT 2007  
                 D BIB AB FHIT 19-24

FILE 'STNGUIDE' ENTERED AT 14:48:19 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:49:30 ON 30 OCT 2007  
                 D IBIB ED ABS HITIND HITSTR 25-40

FILE 'STNGUIDE' ENTERED AT 14:49:41 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:50:30 ON 30 OCT 2007  
                 D IBIB AB 41

FILE 'STNGUIDE' ENTERED AT 14:50:32 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:50:50 ON 30 OCT 2007  
                 D IBIB AB 42-52

FILE 'STNGUIDE' ENTERED AT 14:50:53 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:51:29 ON 30 OCT 2007  
                 D IALL ABEQ TECH ABEX FRAGHITSTR HITSTR 53-60

FILE 'STNGUIDE' ENTERED AT 14:51:39 ON 30 OCT 2007

FILE 'CASREACT, CHEMINFORMRX, BABS, WPIX, USPATFULL, HCAPLUS' ENTERED AT  
14:52:41 ON 30 OCT 2007  
                 D IBIB AB HITSTR 61-62

FILE 'STNGUIDE' ENTERED AT 14:52:49 ON 30 OCT 2007  
                 D QUE NOS L235  
                 D QUE NOS L189

D QUE NOS L194  
 D QUE NOS L202  
 D QUE NOS L221  
 D QUE NOS L227

L240 FILE 'HCAPLUS, USPATFULL' ENTERED AT 14:54:52 ON 30 OCT 2007  
 2 DUP REM L189 L235 L194 L202 L221 L227 (0 DUPLICATES REMOVED)  
 ANSWER '1' FROM FILE HCAPLUS  
 ANSWER '2' FROM FILE USPATFULL  
 SAVE TEMP L240 NWA553BINV/A

FILE 'STNGUIDE' ENTERED AT 14:55:12 ON 30 OCT 2007

FILE 'USPATFULL, HCAPLUS' ENTERED AT 14:55:25 ON 30 OCT 2007  
 D IBIB ED ABS HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 14:55:26 ON 30 OCT 2007

FILE 'USPATFULL, HCAPLUS' ENTERED AT 14:55:44 ON 30 OCT 2007  
 D IBIB AB HITSTR 2

FILE 'STNGUIDE' ENTERED AT 14:55:44 ON 30 OCT 2007

FILE 'STNGUIDE' ENTERED AT 14:55:47 ON 30 OCT 2007

FILE HOME

FILE STNGUIDE  
 FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Oct 26, 2007 (20071026/UP).

FILE CASREACT  
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FILE CONTENT:1840 - 27 Oct 2007 VOL 147 ISS 19

New CAS Information Use Policies, enter HELP USAGETERMS for details.

```
*****
*
*      CASREACT now has more than 13.8 million reactions
*
*****
```

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE CHEMINFORMRX  
 FILE LAST UPDATED: 12 SEP 2007 <20070912/UP>

>>> CAS Registry Numbers are available for  
 substances prior to 1995 <<<

## FILE HCAPLUS

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FILE COVERS 1907 - 30 Oct 2007 VOL 147 ISS 19  
FILE LAST UPDATED: 29 Oct 2007 (20071029/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

## FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 30 Oct 2007 (20071030/PD)  
FILE LAST UPDATED: 30 Oct 2007 (20071030/ED)  
HIGHEST GRANTED PATENT NUMBER: US7290289  
HIGHEST APPLICATION PUBLICATION NUMBER: US2007250975  
CA INDEXING IS CURRENT THROUGH 30 Oct 2007 (20071030/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 30 Oct 2007 (20071030/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2007  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2007

## FILE USPATOLD

FILE COVERS U.S. PATENTS 1790-1975  
Produced using data provided by Univentio.

This database was created using Optical Character Recognition (OCR) technology. For this reason, some characters may be missing or mistranslated. In order to improve searchability and retrieval, CA indexing information has been added to the Title, Inventor, and Patent Assignee fields where possible. Please see HELP CASDATA for more information on the availability of CAS indexing in this database.

## FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 30 Oct 2007 (20071030/PD)  
FILE LAST UPDATED: 30 Oct 2007 (20071030/ED)  
HIGHEST GRANTED PATENT NUMBER: US2007159859  
HIGHEST APPLICATION PUBLICATION NUMBER: US2007250974  
CA INDEXING IS CURRENT THROUGH 30 Oct 2007 (20071030/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 30 Oct 2007 (20071030/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2007  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2007

## FILE JAPIO

FILE LAST UPDATED: 29 OCT 2007 <20071029/UP>  
FILE COVERS APRIL 1973 TO JULY 26, 2007



>>> GRAPHIC IMAGES AVAILABLE <<<

FILE SCISEARCH

FILE COVERS 1974 TO 25 Oct 2007 (20071025/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE WPIX

FILE LAST UPDATED: 26 OCT 2007 <20071026/UP>  
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200769 <200769/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> Now containing more than 1 million chemical structures in DCR <<<

>>> IPC Reform backfile reclassification has been loaded to September 6th 2007. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC, 20070601/UPIC and 20071001/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:  
[http://www.stn-international.de/training center/patents/stn guide.pdf](http://www.stn-international.de/training%20center/patents/stn%20guide.pdf)

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE  
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

EXPLORE DERWENT WORLD PATENTS INDEX IN STN ANAVIST, VERSION 2.0:  
[http://www.stn-international.com/archive/presentations/DWPIAnaVist2 0710.p](http://www.stn-international.com/archive/presentations/DWPIAnaVist2%200710.ppt)

FILE ZCAPLUS

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FILE COVERS 1907 - 30 Oct 2007 VOL 147 ISS 19  
FILE LAST UPDATED: 29 Oct 2007 (20071029/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 OCT 2007 HIGHEST RN 951883-76-4  
DICTIONARY FILE UPDATES: 29 OCT 2007 HIGHEST RN 951883-76-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

FILE LREGISTRY.

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE BEILSTEIN

FILE LAST UPDATED ON September 26, 2007

FILE COVERS 1771 TO 2007.

**FILE CONTAINS 10.119,480 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
\* FOR PRICE INFORMATION SEE HELP COST \*  
\*\*\*\*\*

**NEW**

**\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.**  
**\* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.**

FILE BABS

FILE LAST UPDATED: 25 JUN 2007 <20070625/UP>

FILE COVERS 1980 TO DATE.

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